



RESEARCH CENTER

FIELD

Perception, Cognition, Interaction

## Activity Report 2012

# Section Dissemination

Edition: 2013-04-24



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## ALPAGE Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

- Alpage is involved in the French journal *Traitement Automatique des Langues* (T.A.L., AERES linguistic rank: A). Éric de La Clergerie is “Rédacteur en chef” and was the editor of the special issue 53/2 (2012) on “Time and Space”. Laurence Danlos is a member of the editorial board. Benoît Sagot is a guest editor, jointly with Núria Bel, for a special issue on Language Resources for which Benoît Crabbé is a member of the specific reviewing committee.
- Alpage members were involved in many Program, Scientific or Reviewing Committees for other journals and conferences. For example, Éric de La Clergerie participated to the program committees of CSLP’12, LGC’12, STAIRS’12, NAACL-HLT’12 (Parsing Area), TALN’12 (Scientific Committee), LREC’12 (Scientific Committee), WoLE’2012 (1st International Workshop on Web of Linked Entities) and reviewed for the journal *Computational Linguistics*; Djamé Seddah was a PC member of EMNL2012, TALN 2012, CICLING 2012; and Benoît Crabbé was a reviewer for the journals LRE and *Language Modeling*.
- Alpage, (and more specifically Éric de La Clergerie, Djamé Seddah, and Laurence Danlos) was in charge of the organization of TAG+11 (on Tree Adjoining Grammars and Related Formalisms, <http://alpage.inria.fr/tagplus11>), that was held in Paris (September 2012).
- Laurence Danlos co-organized (with Pierre Zweigebaum , LIMSI, CNRS) a one-day ATALA workshop on Artificial Intelligence and Natural Language Processing that was held in Paris in April 2012.
- Benoît Sagot is elected board member of the French NLP society (ATALA) and Secretary since September 2010.
- Laurence Danlos is a member of the Permanent Committee of the TALN conference organized by ATALA.
- Laurence Danlos is a member of the Scientific Committee of the Linguistics UFR of University Paris Diderot.
- Benoît Sagot is a member of the Governing Board and of the Scientific Board of the LabEx (excellency cluster EFL), as head of the research strand on language resources; Laurence Danlos is a member of the Scientific Board of the LabEx EFL, representing Alpage.
- Djamé Seddah is one of the founders of the statistical parsing of morphologically rich language initiative that started during IWPT’09. He was the program co-chair of the successful SPMRL 2010 NAACL-HLT Workshop and of its 2011 edition that took place during IWPT’11. He co-chaired an ACL 2012 workshop centered around the Syntactic and Semantic Processing of Morphological Rich Languages. He and Marie Candito are also involved (both as core members, Djamé Seddah as co-chair) into the MRL statistical parsing shared task that will be organized in this context (data are to be released in February 2013 and the results will be presented at EMLP 2013; Marie Candito is in charge of the French data). Moreover, Benoît Sagot is a member of the reviewing committees. Finally, Alpage is a regular sponsor of this series of workshops.
- Djamé Seddah was one of the guest-editors of a Special issue of the Computational Linguistics Journal dedicated to the Parsing of Morphologically-Rich Language.
- Djamé Seddah was the program chairs of the French NLP society one-day workshops (until September 2012) and a member of its board.
- Marie Candito organized the Alpage research seminar.

- Benoît Crabbé co-organized the research seminar : le.ctures in experimental linguistics (Univ P7)
- Benoît Crabbé and Benoît Sagot were project reviewers for the National Research Agency (ANR).

## **9.2. Participation to workshops, conferences, and invitations**

Invited talks and seminars:

- Benoît Sagot gave an invited talk at the workshop on “Computational Approaches to Morphological Complexity” in Surrey, UK and he presented the French Social Media Bank within the Working Group n°9 “Shallow Annotation” of the Consortium Corpus Écrits within the Très Grande Infra-structure de Recherche (TGIR) CORPUS.
- Benoît Sagot was invited to a seminar at Düsseldorf to talk on “Semi-automatic development of lexical resources”.
- Laurence Danlos gave invited seminars at Laboratoire d’Informatique de l’Université Pierre et Marie Curie, France, at Computer Science department of UDM (Université de Montréal) Canada, at ENS Lyon and University Paris Sorbonne in France.
- Djamé Seddah gave an invited seminar at the University of Dusseldorf (Abteilung für Computer-linguistik), was a panelist at the NAACL Workshop on Statistical Analysis of Non Canonical Languages, and gave an invited talk at the Paris 7 Linguistics department.
- Benoît Crabbé gave an invited tutorial at the "Experiences, empiricité, expérimentations en linguistique" at Saint Raphael (organized by the CNRS lab HTL) and gave a talk at the "demi heure de sciences" of Inria’s Paris Rocquencourt center.
- Marie Candito gave an invited talk at the seminar series of the LIMSI’s Groupe Information, Langue Ecrite et Signée (ILES)

Participation to conferences and workshops (in almost all cases, this is associated with at least a talk or a poster presentation):

- Almost all members of Alpage participated to TALN 2012, Genoble, France.
- Several members of Alpage participated to TAG+11, organized by Alpage in Paris, France.
- Laurence Danlos and Juliette Thuillier participated to CMLF’12 (Congrès Mondial de Linguistique française) in Lyon, France.
- Laurence Danlos and Charlotte Roze participated to the Muldico Exploratory Workshop "Towards a multilingual database of connectives" in Iena, Deutschland.
- Laurence Danlos participated in a Linguistic workshop in Bordeaux.
- Rosa Stern participated to the EACL workshop on Innovative hybrid approaches to the processing of textual data – Poster
- Rosa Stern participated to the AKBC-WEKEX workshop (<http://akbcwekex2012.wordpress.com>) – Poster
- Éric de La Clergerie participated to the 11th International Workshop on Treebanks and Linguistic Theories (TLT11) in Lisbon, Portugal – Paper
- Laurence Danlos, Charlotte Roze, Éric de La Clergerie, Marie Candito participated to LREC’12 in Istanbul, Turkey – Papers
- Laurence Danlos and Éric de La Clergerie participated to the Lexis-Grammar Conference in Nové Hrady, Czech Republic – Paper
- Benoît Sagot participated to LREC’12 in Istanbul, Turkey – 5 oral presentations, 1 poster, and a participation at a workshop.
- Djamé Seddah presented one poster at EVALITA 2012 (Rome), one at LREC 2012 (Istanbul), one talk at COLING 2012 (Mumbai) and one talk at NAACL SANCL 2012 (Montreal).

## 9.3. Teaching - Supervision - Juries

### 9.3.1. Teaching

Alpage is in charge of the prestigious cursus of Computational Linguistics of Paris 7, historically the first cursus in France in this domain. This cursus, which starts in License 3 and includes a Master 2 (research) and a professional Master 2, is directed by Laurence Danlos. Marie Candito is in charge of the License 3, and Laurence Danlos is in charge of both Master 2. All faculty members of Alpage are strongly involved in this cursus, but some Inria members also participate in teaching and supervizing internships. Unless otherwise specified, all teaching done by Alpage members belong to this cursus. Teaching by associate members in other universities are not indicated.

Laurence Danlos (Inria partial delegation): Introduction to NLP (3rd year of License, 28h); Discourse, NLU and NLG (2nd year of Master, 28h).

Marie Candito (Inria part time delegation, renewed in September 2012): Information retrieval (2nd year of professional Master, 12h); Clustering and Classification (2nd year of professional Master, 12h); Automatic semantic analysis (2nd year of Master, 12h); Machine translation (1st year of Master, 48h);

Benoît Crabbé: Language data analysis (24h Master 2 P7) ; Logical and Computational structures for language modelling (12h Master 2 MPRI) with S. Schmitz. Introduction to computer science (24h L3 P7); Introduction to Corpus Linguistics (24h L3 P7); Stochastic methods for NLP (24h Master 1 P7); Introduction to Computational Linguistics (24h UFR P7);

Benoît Sagot: Parsing systems (2nd year of Master, 24h).

Charlotte Roze: Introduction to Programming (3rd year of License, 24h); Algorithmics (3rd year of License, 24h).

Juliette Thuilier: Syntactic theories : Lexical-Functional Grammar (3rd year of Licence, 48h); Introduction to syntax (2nd year of License, 24h) at University Paris Sorbonne; Implementation of LFG Grammar (2nd year of License, 12h) at University Paris Sorbonne;

Pierre Magistry: Object Oriented Programming, Java-II (3rd year of licence, 12/24h) ; Syntax : HPSG with LKB (1st year Master, 24h)

Luc Boruta: Introduction to Programming II (3rd year of License, 24h); Algorithmics (3rd year of License, 24h); Language & Computer Science (1st year of License, 12h);

François-Régis Chaumartin: Modélisation (UML) et bases de données (SQL) (2rd year of professional Master, 24h).

Chloé Braud: Programmation 2 Java 24h (L3 LI CM/TP); Sémantique computationnelle 24h (M1 LI TD).

Djamé Seddah (half-delegation since September 2011, renewed for 2012): as an Assistant Professor in CS in the University Paris 4 Sorbonne, member of the UFR ISHA, mainly teaches “Generic Programming and groupware”, “Distributed Application and Object Programming”, “Syntactic tools and text Processing for NLP”, “Machine Translation Seminars” in both years of the Master “Ingénierie de la Langue pour la Gestion Intelligente de l’Information”. Djamé Seddah is also the “Directeur des études” of a CS transversal module for the Sorbonne’s undergraduate students (ie “Certificat Informatique et Internet”).

Ongoing PhDs and PhDs defended in 2012:

PhDs in progress:

- Corentin Ribeyre, *vers la syntaxe profonde pour l'interface syntaxe-sémantique*, started in November 2012, supervised by Laurence Danlos, co-supervised by Djamé Seddah and Éric de La Clergerie.
- Isabelle Dautriche, *Exploring early syntactic acquisition: a experimental and computational approach*, started in September 2012, co-supervised by Benoît Crabbé.

- Marion Baranes, *Correction orthographique contextuelle de corpus multilingues et multicanaux*, started in January 2012, supervised by Laurence Danlos, co-supervised by Benoît Sagot, in collaboration with the viaooo company.
- Marianne Djemaa, *Création semi-automatique d'un FrameNet du français, via interface syntaxe-sémantique*, started in October 2012, supervised by Laurence Danlos, co-supervised by Marie Candito
- Chloé Braud, *Développement d'un système complet d'analyse automatique du discours à partir de corpus annotés, bruts et bruités*, started in September 2011, supervised by Laurence Danlos
- Valérie Hanoka, *Construction semi-automatique de réseaux lexicaux spécialisés multilingues*, started in January 2011, supervised by Laurence Danlos, co-supervised by Benoît Sagot
- Enrique Henestroza Anguiano, *Enhancing statistical parsing with lexical resources*, started in November 2009, supervised by Laurence Danlos and co-supervised by Marie Candito and Alexis Nasr.
- Emmanuel Lassalle, *Résolution automatique des anaphores associatives*, started in September 2010, supervised by Laurence Danlos
- Pierre Magistry, *Construction (semi)-automatique de lexiques dynamiques du mandarin*, started in September 2010, supervised by Sylvain Kahane and co-supervised by Benoît Sagot and Marie-Claude Paris
- Charlotte Roze, *Vers une algèbre des relations de discours*, started in October 2009, supervised by Laurence Danlos
- Rosa Stern, *Construction d'une base de référence pour les métadonnées de dépêches d'agence: reconnaissance et résolution jointes d'entités avec adaptation au domaine*, started in November 2009, supervised by Laurence Danlos and co-supervised by Benoît Sagot

#### PhD defended

- François-Régis Chaumartin, *Extraction automatisée de connaissances d'une encyclopédie*, started in October 2005, supervised by Sylvain Kahane, and defended in September 2012
- Luc Boruta, *Indicators of Allophony and Phonemehood*, started in September 2009, co-supervised by Emmanuel Dupoux (LSCP/ENS) and Benoît Crabbé, defended in September 2012
- Juliette Thuilier, *Contraintes préférentielles et ordre des mots en français*, started in September 2008, supervised by Laurence Danlos and co-supervised by Benoît Crabbé, defended in September 2012

#### 9.3.2. Juries

- Laurence Danlos was a member of the HdR defense committee of Matthieu Constant (University Paris-Est Marne-la-Vallée, Nov. 2012); the title of his dissertation was “Mettre les expressions multi-mots au cœur du Traitement Automatique des Langues - sur l’exploitation de ressources lexicales”.
- Éric de La Clergerie was a member of the PhD defense committee of Karen Fort (Université Paris 13, Dec. 2012); the title of her dissertation was “Les ressources annotées, un enjeu pour l’analyse de contenu : vers une méthodologie de l’annotation manuelle de corpus”.
- Éric de La Clergerie was a member of the PhD defense committee of Nguyen Van Tien (Université de Pau, Nov. 2012). The title of his dissertation was “Méthode d’extraction d’informations géographiques à des fins d’enrichissement d’une ontologie de domaine”.
- Éric de La Clergerie was a member of the PhD defense committee of Milagros Fernandez Gavilanes (Univ. of La Coruña, Spain, Oct. 2012) in quality of co-supervisor. The title of her dissertation was “Adquisición y representación del conocimiento mediante procesamiento del lenguaje natural”.

- Djamé Seddah was a member of the PhD defense committee of Anthony Sigogne (University Paris-Est Marne-la-Vallée, Nov. 2012). The title was "Intégration de ressources lexicales riches dans un analyseur syntaxique probabiliste".
  - Djamé Seddah was a member of the research fellow hiring committee at the University of Copenhagen (Denmark). Position funded by the Andeers Sogaard's ERC young researcher grant.
  - Djamé Seddah was a member of the "Comité de Sélection" for an Assistant Professor position in Computer Science (CNU 27) at Université Paris Sorbonne.
  - Benoît Sagot was a member of the "Comité de Sélection" for an Assistant Professor position in Computer Science (CNU 27) at University Paris-Est Marne-la-Vallée (IUT).
- Marie Candito was a member of the "Comité de Sélection" for an Assistant Professor position in Computer Science (CNU 27) at Université Aix-Marseille II.

## **9.4. Popularization**

- Éric de La Clergerie and Mikael Morardo have presented some results about NLP and Knowledge Acquisition during "Les journées de la science" (Oct. 2012).
- Éric de La Clergerie was invited to talk to the Inria Sophia seminar "C@fe-in" and to the CIV (*Valbonne International Center*) about "Les ordinateurs comprennent-ils le langage ?" (*Do computers understand language ?*).

## **9.5. AERES Evaluation**

The UMR-I formed by Alpage was evaluated by AERES on December 4th, 2012.

## METISS Project-Team

# 9. Dissemination

## 9.1. Animation of the scientific community

Frédéric Bimbot is the Head of the "Digital Signals and Images, Robotics" in IRISA (UMR 6074).

Frédéric Bimbot was a member of the Comité National de la Recherche Scientifique (Section 07 and Inter-Disciplinary Commission 42)

Frédéric Bimbot is the General Chairman of the Interspeech 2013 Conference in Lyon (1200 participants expected).

Frédéric Bimbot is the Scientific Leader of the Audio Processing Technology Domain in the QUAERO Project.

Rémi Gribonval is in charge of the Action "Parcimonie" within the French GDR ISIS on Signal & Image Processing

Rémi Gribonval and Emmanuel Vincent were Guest Editors of the special issue on Latent Variable Analysis and Signal Separation of the journal *Signal Processing* published by Elsevier [46].

Rémi Gribonval and Emmanuel Vincent are members of the International Steering Committee for the LVA conference series.

Emmanuel Vincent is an Associate Editor for the *IEEE Transactions on Audio, Speech, and Language Processing* (2011–2014).

Emmanuel Vincent was a Guest Editor of the special issue on Speech Separation and Recognition in Multisource Environments of the journal *Computer Speech and Language* published by Elsevier [35].

Emmanuel Vincent was elected a member of the IEEE Technical Committee on Audio and Acoustic Signal Processing (2012–2014).

Emmanuel Vincent is the General Chair of the 2nd International Workshop on Machine Listening in Multi-source Environments (CHiME), to be held in Vancouver as a satellite even of ICASSP 2013 on June 1, 2013, and an organizer of the 2nd CHiME Speech Separation and Recognition Challenge.

Emmanuel Vincent is a titular member of the National Council of Universities (CNU section 61, 2012–2015).

Nancy Bertin was elected a member of the IEEE Technical Committee on Audio and Acoustic Signal Processing (2013–2015).

## 9.2. Teaching

Rémi Gribonval gave a series of tutorial lectures on sparse decompositions and compressed sensing at two-day workshop on "Sparse Representations and Machine Learning" (Rennes, October 2012).

Rémi Gribonval gave lectures about sparse representations for inverse problems in signal and image processing for a total of 10 hours as part of the SISEA Masters in Signal & Image Processing, University of Rennes I.

Rémi Gribonval was the coordinator of the ARD module of the Masters in Computer Science, Rennes I.

Rémi Gribonval gave lectures about signal and image representations, time-frequency and time-scale analysis, filtering and deconvolution for a total of 8 hours as part of the ARD module of the Masters in Computer Science, Rennes I.

Emmanuel Vincent gave a tutorial on "Uncertainty handling for environment-robust speech recognition" with Ramon F. Astudillo and Li Deng at InterSpeech 2012 (13th Annual Conference of the International Speech Communication Association), Portland, OR, September 9–13, 2012.

Nancy Bertin gave lectures about audio rendering, coding, indexing, classification, speech processing and source separation, for a total of 12 hours as part of the CTR and FAV modules of the Masters in Computer Science, Université Rennes I.

## PAROLE Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

- The members of the team frequently review articles and papers for Journal of Phonetics, JASA, Acta Acoustica, Computer Speech and Language, Speech communication, TAL, IEEE Journal of Selected Topics in Signal Processing, IEEE Transaction of Information Theory, IEEE Signal Processing Letters, Signal Processing, Multimedia Tools, Pattern Recognition Letters, ICASSP, INTERSPEECH, EURASIP, JEP.
- Member of editorial boards :
  - Speech Communication (J.P. Haton, D. Jouvet)
  - Computer Speech and Language (J.P. Haton)
  - EURASIP Journal on audio, Speech, and Music Processing (Y. Laprie)
- Member of scientific committee of conference :
  - TAIMA, SIIIE (K. Smaili, J.P. Haton)
  - JEP, (I. Illina)
- Member of organisational conference committees :
  - AVSP 2013, (S. Ouni)
- Coordinator of French part of ERASMUS Intensif Programme : Learning Computer Programming in Virtual Environment (I. Illina)
- Reviewer of projects in the European FET (Future and Emerging Technologies) (Y. Laprie).
- Member of “Conseil scientifique IRCOM Consortium corpus oraux et multimodaux” (D. Fohr)
- Member of “Association Française pour la Communication Parlée” (French Association for Oral Communication) board (D. Langlois)
- Member of the lorrain network on specific language and learning disabilities and in charge of the speech and language therapy expertise in the Meurthe-et-Moselle House of Handicap (MDPH) (A. Kipffer-Piquard)
- Member of the Scientific Committee of Télécom- Bretagne, Brest (Jean-Paul Haton)
- The members of the team have been invited as lecturer:
  - Agnès Piquard-Kipffer, Finnish Center of Excellence in Learning and Motivation - (Finlande, Jyväskylä).
  - Agnès Piquard-Kipffer, EHESP, Ecole des Hautes Etudes de Santé Publique - Rennes, Sorbonne Paris Cité Université.
  - David Langlois has presented the Machine Translation domain to students in University of Tunis, in 2012 november.
  - Anne Bonneau has presented “speech sounds” at the 5e congrès jeunes chercheurs "Chamboule tes sens" Nancy, March 2012.
  - Jean-Paul Haton : “Introduction à l’intelligence artificielle”, Ecole Doctorale SIMEM, Caen, 24/04/2012
  - Jean-Paul Haton : “Intelligence artificielle et langue : état des lieux”, Journée “IA et TALN” AFIA-ATALA, Paris, 12/03/2012
  - Jean-Paul Haton : “Automatic Speech Recognition ; past, present and future”, Invited Keynote Speech, EUSIPCO, Bucharest, 28/08/2012

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

The professors and associate professors of the team are teaching at Lorraine University.

Teaching activities in relation with the team research domains:

- Analyse, Traitement et reconnaissance de la parole, 30HETD, M1, Université de Lorraine (V. Colotte and D. Langlois),
- Natural Langue Processing (in English), 24HETD,
- M2 Erasmus Mundus, université de Lorraine (K. Smaïl),
- école d'orthophonie, faculté de médecine, Université de Lorraine (Agnes Piquard-Kipffer and Anne Bonneau),
- école d'audioprothèse, faculté de pharmacie, Université de Lorraine (Anne Bonneau),

In addition to courses, we highlight the following activities:

- A strong involvement of the team members in education and administration (Lorraine University): Master of Computer Science, IUT, MIAGE, Speech and Language Therapy School of Nancy;
- Coordinator of C2i (Certificat Informatique et Internet) at Lorraine University (V. Colotte).
- Head of MIAGE Maroc (students of Lorraine University but having their courses in Morocco)(K. Smaïli),
- Head of UFR Math-Info at Lorraine University (K. Smaïli),
- Head of Networking Speciality of Lorraine University Master of Computer Science until 1st September (O. Mella).
- co-Director of DU, « Troubles du Langage et des Apprentissages », Lorraine University, Faculté de Médecine (Agnès Piquard-Kipffer)

### **9.2.2. Supervision**

Phd : Sylvain Raybaud, “De l'utilisation de mesures de confiance en traduction automatique : évaluation, post-édition et application à la traduction de la parole”, Lorraine University, Dec 2012, David Langlois and Kamel Smaïli

Phd : Christian Gillot, “Modèles de langue exploitant la similarité structurelle entre séquences pour la reconnaissance de la parole”, Lorraine University, Dec 2012, Christophe Cerisara and Jean-Paul Haton

PhD in progress : Utpala Musti, Acoustic-Visual Synthesis using bimodal selection, September 2009, S. Ouni and V. Colotte

PhD in progress : Julie Busset, Inversion acoustique articulatoire à partir de coefficients cepstraux, to be defended in February 2013

PhD in progress : Motaz Saad, “Etude de comparabilité de corpus multilingues et analyse émotionnelle de leurs contenus”, Kamel Smaïli and David Langlois

PhD in progress : Fadoua Bahja, Détection du Fondamental de la Parole : Application à la Voix Pathologique, from Mai 2009, Joseph Di Martino and Elhassane Ibn Elhaj.

PhD in progress : Othman Lachhab, Reconnaissance de la Parole Continue : Application au Rehaussement de la Voix Pathologique, from November 2010, Joseph Di Martino and Elhassane Ibn Elhaj.

PhD in progress : Cyrine Nasri, “Une alternative à l'alignement standard des séquences de traduction”, Kamel Smaïli

PhD in progress : Arseniy Gorin, Handling trajectories and speaker consistency in automatic speech recognition, October 2011, D. Jouvet.

PhD in progress : Alex Mesnil, “Modélisation bayésienne hiérarchique et parcimonieuse pour le langage naturel”, Emmanuel Vincent and Kamel Smaïli

PhD in progress : Dung Tran, Uncertainty handling for noise-robust automatic speech recogniton, December 2012, E. Vincent and D. Jouvet.

PhD in progress : Luiza Orosanu, Speech recognition for communication help for deaf or hard of hearing people, December 2012, D. Jouvet.

### **9.2.3. *Juries***

Participation in PhD thesis Jury for Fethi Bougares (Maine University, November 2012), D. Jouvet, reviewer.

Participation in PhD thesis Jury for Camille Fauth (Strasbourg University, December 2012), Y. Laprie, reviewer.

Participation in Selection committee at ENSSAT Rennes University, may 2012 (V. Colotte, O. Mella, Y. Laprie).

## **9.3. Popularization**

the movie “Je peux voir les mots que tu dis” has been selected for the “13ème Festival du Film de Chercheur”

Participation in TV broadcast news (FR3) about voice forensic examinations (Y. Laprie).

## SEMAGRAMME Team

# 8. Dissemination

## 8.1. Scientific Animation

- Maxime Amblard:
  - Head of the preoperative project SLAM: Schizophrenia and Language: Analyze and Modeling—MSH-Lorraine.
  - Vice-treasurer of the Association pour le Traitement Automatique des Langues (ATALA)
  - Head of the master Sciences Cognitives et Applications of University de Lorraine (until July 2012). He was responsible for the application to degree habilitation of the new version of the master mention Science Cognitive et ApplicationA, Université de Lorraine.
  - Member Opération Poste team <sup>5</sup> (until June 2012).
  - Member of the comité de sélection McF 4058 at LIPN – Université Paris 13
- Philippe de Groote:
  - Member of the editorial board of the journal *Higher-Order and Symbolic Computation*.
  - Area editor of the *FOLLI Publications on Logic, Language and Information* (LNCS subline).
  - Member of the ESSLLI standing committee.
  - Member of the scientific committee of the international conference on Logical Aspects of Computational Linguistics (LACL) 2012 and of the international conference on Traitement Automatique de Langues Naturelles (TALN) 2012.
- Bruno Guillaume:
  - Member (elected) of the “Pôle scientifique” IAEM of Université de Lorraine
  - Member of the COMPIERS Inria Nancy Grand-Est
- Guy Perrier:
  - Member of the editorial board of the journal *Traitement Automatique des Langues*.
  - Member of the scientific committee of the international conference on on Traitement Automatique de Langues Naturelles (TALN) 2012.
- Sylvain Pogodalla:
  - Member of the editorial board of the journal *Traitement Automatique des Langues*.
  - Head of the Commission des Développements Technologiques (CDT) of the Nancy Inria Research Center.
  - Coordinator of the POLYMNIE ANR Project.
  - Local coordinator of the Erasmus Mundus Master program Language and Communication Technologies for the Université de Lorraine.
  - Member of the scientific committee of the International Conference on Logical Aspects of Computational Linguistics (LACL) 2012.
  - Member of the jury of the ATALA Dissertation prize (dissertation prize of the French Association pour le Traitement Automatique des Langues).

<sup>5</sup><http://postes.smai.emath.fr/>

## 8.2. Teaching - Supervision - Juries

### 8.2.1. Teaching

Licence: Maxime Amblard, *Penser les algorithmes*, 25h, L1, Université de Lorraine, France  
 Licence: Maxime Amblard, *Introduction au Traitement Automatique des Langues*, 25h, L2, Université de Lorraine, France  
 Licence: Maxime Amblard, *Algorithmique avancée*, 62.5h, L2, Université de Lorraine, France  
 Licence: Maxime Amblard, *Formalismes de représentation et raisonnement*, 25h, L3, Université de Lorraine, France  
 Licence: Guy Perrier, *Outils conceptuels*, 37.5h, L3, Université de Lorraine, France  
 Master: Maxime Amblard, *Algorithmique pour l'Intelligence Artificielle*, 45h, M1, Université de Lorraine, France  
 Master: Maxime Amblard, *Discourse and Dialogue*, 25h, M2, Université de Lorraine, France  
 Master: Philippe de Groote (with Benoît Crabbé), *Structures informatiques et logiques pour la modélisation linguistique*, 18h, M2, Parisian Master of Research in Computer Science, France  
 Master: Philippe de Groote (with Kamel Smaïli), *Logique et statistiques pour la modélisation des langues*, 50h, M2, Université de Lorraine, France  
 Master: Bruno Guillaume, *Grammatical Formalisms*, 25h, M2, Université de Lorraine, France  
 Master: Guy Perrier, *Initiation au TAL*, 37.5h, M1, Université de Lorraine, France  
 Master: Guy Perrier, *Programmation pour le TAL*, 37.5h, M1, Université de Lorraine, France  
 Master: Guy Perrier, *Tools and algorithms for NLP*, 44h, M2, Université de Lorraine, France  
 Master: Sylvain Pogodalla, *Computational Semantics*, 25h, M2, Université de Lorraine, France  
 Master: Sai Qian, *Applications of Natural Language Processing*, 37.5h, M2, Université de Lorraine, France  
 Master: Sai Qian, *Algorithmique pour l'Intelligence Artificielle*, 22h, M1, Université de Lorraine, France

### 8.2.2. Supervision

Ekaterina Lebedeva, *Expression de la dynamique du discours à l'aide de continuations*, Université de Lorraine, defended on April 6 2012, Philippe de Groote [9]  
 Aleksandre Maskharashvili, *Generation and Discourse with Abstract Categorial Grammars*, since November 2012, Philippe de Groote and Sylvain Pogodalla  
 Florent Pompigne, *Modélisation logique de la langue et Grammaires Catégorielles Abstraites*, since September 2008, Philippe de Groote and Sylvain Pogodalla  
 Sai Qian, *Investigation of variable accessibility in natural language semantic modelization*, since September 2009, Maxime Amblard and Philippe de Groote

### 8.2.3. Juries

Guy Perrier was member of the PhD committee of François-Régis Chaumartin, Université Paris Diderot, September 25 2012  
 Guy Perrier was member of the PhD committee of Christian Gillot, Université de Lorraine, December 12 2012  
 Philippe de Groote was member of the PhD committee of Pierre Bourreau, University of Bordeaux 1, June 29 2012

## 8.3. Popularization

Maxime Amblard is member of the editorial board of [j\(i\) interstices](#).  
 Maxime Amblard supervised a group of Phd students for vulgarization of science with drama, Journée internationales Hubert Curien, Nancy, 3-4-5 September 2012.  
 Guy Perrier and Bruno Guillaume are interviewed in the scientific TV program “C à Savoir” on France 3 Lorraine channel. The program is available at <http://tinyurl.com/semagramme-france3>.

## ALICE Project-Team

# 7. Dissemination

## 7.1. Scientific Animation

Sylvain Lefebvre was in the following program committees in 2012: SIGGRAPH Asia, EGSR, High Performance Graphics, EUROGRAPHICS Short papers and I3D. He joined the editorial board of TOG as an associate editor. He was also an invited speaker at SIBGRAPI 2012 in Ouro Preto, Brazil.

Bruno Lévy was in the following program committees in 2012: ACM SIGGRAPH, Eurographics, SPM, IEEE SMI, ACM/EG SGP, Pacific Graphic, GMP, DGCI. He was an invited speaker in the EIT ICT labs school and gave an invited tutorial at the Internatinal Meshing Roundtable.

Rhaleb Zayer was in the Program committee of EUROGRAPHICS 2012 (Full papers).

## 7.2. Teaching - Supervision - Juries

### 7.2.1. Teaching

Sylvain Lefebvre was involved in the following courses:

- Ecole Central Paris - 6h ETD
- Ecole Nationale Supérieure de Géologie - 9h ETD
- Ecole des Mines de Nancy, Introduction à la programmation graphique et de jeux vidéos - 30h ETD
- Université de Lorraine, Mise en place du module d'introduction à la programmation massivement parallèle (OpenCL), M1, 28h ETD en collaboration avec Dmitry Sokolov
- Ecole d'hiver at ENS Lyon - 12h ETD

Samuel Hornus was involved in the following courses:

- "Functional programming with OCaml" at ÉPITECH Nancy (private school training programmers, <http://nancy.epitech.eu/>). Lecture: 9h. Lab work: 18h. 3 student projects.

Dmitry Sokolov was involved in the following courses:

- Algorithme avancée, 28h, M2 Math de l'UL, France
- Géométrie et représentation dans l'espace, 35h, L2 Informatique de l'UL, France
- Logiques et Modèles de calcul, 30h, M1 Informatique de l'UL, France
- Infographie 76h, M1 Informatique de l'UL, France
- Modèles de perception et raisonnement, 56h, M1 Informatique de l'UL, France
- Parallelisme de données, 15h, M1 Informatique de l'UL, France

Dobrina Boltcheva was involved in the following courses:

- Synthèse d'images, 15h, Licence ISN, IUT Saint-Dié-des-Vosges
- Traitement d'images, 30h, 2A DUT INFO, IUT Saint-Dié-des-Vosges
- Modélisation des systèmes d'informations I, 26h, 1A DUT INFO, IUT Saint-Dié-des-Vosges
- Modélisation des systèmes d'informations II, 20h, 2A DUT INFO, IUT Saint-Dié-des-Vosges
- Conception de structures de données, 38h, 2A DUT INFO, IUT Saint-Dié-des-Vosges
- Outils de génie logiciel, 48h, 2A DUT INFO, IUT Saint-Dié-des-Vosges

Bruno Lévy teaches "Numerical Geometry" in the Nancy School of Geology, and gave courses at "Ecole de Recherche ENS Lyon" and "Conférences de rentrée de l'ENS Cachan".

### **7.2.2. Supervision**

PhD : Anass Lasram, Exploring and Rendering Synthesized Textures, Université de Lorraine, Finished 10 Dec. 2012, Bruno Lévy and Sylvain Lefebvre

PhD : Vincent Nivoliers, Optimal Sampling of Surfaces, Finished 30 Nov. 2012, Bruno Lévy

PhD in progress : Sergey Podkorytov, Fractal Differential Geometry, Started 1 Sept. 2010, Christian Gentil and Dmitry Sokolov

PhD in progress : Kun LIU, Modèle discret guidé par l'acquisition pour les objets déformables, Started 1 Aug. 2010, Rhaleb Zayer and Bruno Lévy

PhD in progress : Alejandro Patricio GALINDO, Traitment de l'image et video tracking pour l'extraction d'informations pertinentes, Started 15 Sept. 2012, Rhaleb Zayer and Bruno Lévy

PhD in progress : Thomas Joste, Numerical Solvers on the GPU, Bruno Lévy and Sylvain Contassot

PhD in progress : Romain Merland, Voronoi grids for flow simulations in geology, Guillaume Caumon and Bruno Lévy

PhD in progress : David Lopez, Dynamic meshing of free surfaces in fluid simulation, Bruno Lévy

PhD in progress : Jeanne Pellerin, Hybrid meshing for geosciences, Guillaume Caumon and Bruno Lévy

### **7.2.3. Juries**

Sylvain Lefebvre was a jury member for the doctoral committee of Ismael Garcia (U. of Girona).

Bruno Lévy was a jury member for the Habilitation theses of Tamy Boubekeur (Telecom Paristech), Jean-Philippe Vandeborre (Telecom Lille 1), Hyewon Seo (Strasbourg LSIIT), Ivo Ihrke (Bordeaux) and the Ph.D. theses of Alexandre Coninx (Grenoble), Avinash Sharma (Grenoble), Said Jabrane (UCB Lyon), Jean-Marc Thierry (Telecom Paristech), Simon Boyé (Bordeaux), Yann Savoye (Bordeaux).

## **7.3. Popularization**

Sylvain Lefebvre has continued to animate the "Commission de médiation scientifique" of the Inria Nancy Grand-Est center. He participated in the 2012 science festival, in the "Cordées de la réussite" initiative, presented the software "Mobinet" to high-school teachers, and participated in the prizes ceremony for the Mathematics Olympiads.

Vincent Nivoliers participated to the "Fête de la Science" and "Maths en Jeans" events, by showing demos and giving tutorials.

## AVIZ Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

AVIZ members are active worldwide in the domains of Visualization, Visual Analytics, and HCI.

### 9.1.1. Keynotes and Invited Talks

- Jean-Daniel Fekete: *Invited talk for the 25th anniversary of Fraunhofer IGD: Visual Analytics of Large Social Networks*, Darmstadt, Germany, Nov. 14, 2013
- Jean-Daniel Fekete: *Keynote for the Digiteo Forum 2013: "Au-delà des pelotes de fils : progrès et défis de la visualisation des réseaux sociaux"*, Polytechnique, France, Nov. 13 2012
- Jean-Daniel Fekete: *Keynote for CANVAS 2012 the CANadian Visual Analytics School 2012: Advances in Social Network Visualization*, Vancouver, CA, Jul 24, 2012
- Jean-Daniel Fekete: *Summer Course at the European Business Intelligence Summer School 2012: Visualizing and Exploring Complex Multidimensional Data*, Bruxelles, BE, Jul. 19, 2012
- Jean-Daniel Fekete: *Keynote for Visual Decision Forum 2012: Recherche en visualisation: que doit-on en attendre ?*, Paris, Jul. 5, 2012
- Jean-Daniel Fekete: *Keynote for EuroVA 2012: Infrastructures for Visual Analytics: You are in a maze of twisty little passages, all alike!* EuroVa, Vienna, Jun. 4, 2012.
- Jean-Daniel Fekete: *Séminaire muséologie: Interfaces innovantes tirant partie des métadonnées*, IRI Centre Pompidou, Paris, May 15
- Jean-Daniel Fekete: *Explorer les corpus : vue d'ensemble et navigation dans de larges corpus documentaires*, EHESS Paris, Mar. 5
- Jean-Daniel Fekete: *Visualisation interactive de réseaux sociaux : dernières avancées et défis*, ISC Lyon, Feb. 2012
- Jean-Daniel Fekete: *InfoVis/DataViz: Donner du sens à la révolution Big Data*, Microsoft TechDays, Paris, Feb. 2012
- Jean-Daniel Fekete: *Advances in Social Network Visualization*, University of Kent, School of Computing Seminar, Jan. 2012
- Jean-Daniel Fekete: *Data Visualisation, visualisation d'information : un nouveau langage visuel*. ENSAD, Paris. Jan. 2012
- Évelyne Lutton: *Tomographic 3D reconstruction using cooperative co-evolution*. MIBISOC, Parma. Feb. 2012
- Petra Isenberg: *Information Visualization: An Introduction to the Field and Applications for Statistics*; StatLearn 2012, Lille
- Petra Isenberg: *Perceptual Experiments for Information Visualization Design*; University of Granada, Spain
- Pierre Dragicevic: *Novel Interactive Visualizations for Social Networks* Colloque LabEx DigiCosme. Ecole Polytechnique. Sep, 13., 2012.

### 9.1.2. Scientific Associations

- Jean-Daniel Fekete is the president of the French Speaking HCI Association 2009–2014
- Evelyne Lutton is the president of the EA steering committee (<http://ea.inria.fr>),

- Evelyne Lutton is founding member of the « Task Force on Evolutionary Computer Vision and Image Processing » within the IEEE CIS Evolutionary Computation Technical Committee (ECTC),
- Evelyne Lutton is president of the french-WIE afinity group.

### **9.1.3. Conference Organization**

- Jean-Daniel Fekete will be general chair of the IEEE VIS 2014 conference in Paris,
- Jean-Daniel Fekete is in the Steering Committee of EuroVis 2012–2019,
- Jean-Daniel Fekete is in the Steering Committee of IEEE InfoVis 2011–2018,
- Jean-Daniel Fekete is member of the Conference Management Committee in charge of Data Analysis for ACM SIGCHI
- Petra Isenberg was on the Best Short Paper Committee for Eurographics European Conference on Visualization,
- Petra Isenberg was Publicity Chair for the ACM Conference on Tabletops and Interactive Surface,
- Petra Isenberg was Tutorials Chair for IEEE InfoVis 2012,
- Petra Isenberg and Tobias Isenberg co-organized the Workshop on Beyond Time and Error: Novel Evaluation Methods for Visualization (BELIV) at IEEE VisWeek,
- Tobias Isenberg is in the Steering Committees of NPAR and Computational Aesthetics.

### **9.1.4. Conference Program Committees**

- Pierre Dragicevic was member of the program committee for UIST 2012,
- Pierre Dragicevic was member of the program committee for 3DUI 2012,
- Pierre Dragicevic was member of the program committee for ErgoIHM 2012,
- Pierre Dragicevic was member of the program committee for CHI 2013,
- Jean-Daniel Fekete was member of the program committee for IEEE InfoVis 2012,
- Jean-Daniel Fekete was member of the program committee for EuroVis 2012,
- Jean-Daniel Fekete was member of the program committee for AVI 2012,
- Petra Isenberg was member of the program committee for EuroVis 2012,
- Petra Isenberg was member of the program committee for EuroVA 2012,
- Petra Isenberg was member of the program committee for CHI 2013,
- Tobias Isenberg was member of the program committee for ACM NPAR 2012,
- Tobias Isenberg was member of the program committee for Computational Aesthetics 2012,
- Tobias Isenberg was member of the program committee for EG EuroVis 2012,
- Tobias Isenberg was member of the program committee for EG EuroVis 2012 short papers,
- Tobias Isenberg was member of the program committee for Graphics Interface 2012,
- Tobias Isenberg was member of the program committee for 3DCHI 2012 (ACM CHI 2012 workshop on the 3<sup>rd</sup> Dimension of CHI),
- Évelyne Lutton was member of the program committee of EuroGP 2012,
- Évelyne Lutton was member of the program committee of EvoIASP 2012,
- Évelyne Lutton was member of the program committee of GECCO 2012,
- Évelyne Lutton was member of the program committee of CEC 2012,

### **9.1.5. Journal Editorial Board**

- Jean-Daniel Fekete was associate editor of the IEEE Transactions on Visualization and Computer Graphics

- Jean-Daniel Fekete was guest editor of IEEE Computer Graphics and Applications on the special issue on “Visualization Applications and Design Studies”
- Tobias Isenberg was associate editor of Elsevier Computers & Graphics
- Tobias Isenberg was guest editor of the special section of Elsevier Computers & Graphics for the best papers of the 2011 Joint Symposium on Computational Aesthetics, Non-Photorealistic Animation and Rendering, and Sketch-Based Interfaces and Modeling,
- Petra Isenberg and Tobias Isenberg are guest editors of a special issue of Sage Publishing’s Information Visualization on visualization evaluation.
- Pierre Dragicevic was co-Editor in Chief for the Journal d’Interaction Personne-System (JIPS).

### **9.1.6. Conference Reviewing**

3DUI IEEE Symposium on 3D User Interfaces: Pierre Dragicevic  
 AVI Advanced Visual Interfaces: Jean-Daniel Fekete, Petra Isenberg  
 BELIV Workshop on Beyond Time and Error: Novel Evaluation Methods for Visualization: Jean-Daniel Fekete, Petra Isenberg, Tobias Isenberg  
 CAe Tobias Isenberg  
 CEC IEEE Congress on Evolutionary Computation: Évelyne Lutton  
 CHI ACM Conference on Human Factors in Computing Systems: Pierre Dragicevic, Jean-Daniel Fekete, Petra Isenberg, Tobias Isenberg  
 CSCW ACM Computer Supported Cooperative Work: Petra Isenberg  
 EA Artificial Evolution: Évelyne Lutton  
 EICS ACM SIGCHI Symposium on Engineering Interactive Computing Systems: Jean-Daniel Fekete, Pierre Dragicevic  
 EG Eurographics Conference: Petra Isenberg and Tobias Isenberg  
 EuroGP European Conference on Genetic Programming: Évelyne Lutton  
 EuroVA Eurographics Symposium on Visual Analytics: Petra Isenberg  
 EuroVis Eurographics European Symposium on Visualization: Jean-Daniel Fekete, Petra Isenberg, Tobias Isenberg  
 EvoIASP Evolutionary Computation in Image Analysis and Signal Processing: Évelyne Lutton  
 EvoMusArt European Event on Evolutionary and Biologically Inspired Music, Sound, Art and Design: Évelyne Lutton  
 GECCO Genetic and Evolutionary Computation Conference: Évelyne Lutton  
 Graph Drawing Jean-Daniel Fekete, Benjamin Bach  
 Graphics Interface Tobias Isenberg  
 ICDE IEEE International Conference on Data Engineering: Jean-Daniel Fekete  
 IHM Interface Homme Machine IHM: Pierre Dragicevic, Jean-Daniel Fekete  
 InfoVis IEEE Conference on Information Visualization: Pierre Dragicevic, Petra Isenberg, Tobias Isenberg  
 ISVC International Symposium on Visual Computing: Petra Isenberg  
 ITS International Conference on Interactive Tabletops and Surfaces: Pierre Dragicevic, Petra Isenberg, Tobias Isenberg, Yvonne Jansen  
 MobileHCI Pierre Dragicevic  
 NISCO Nature Inspired Cooperative Strategies for Optimization: Évelyne Lutton  
 NordiCHI Nordic Forum for Human-Computer Interaction: Petra Isenberg  
 NPAR Tobias Isenberg

PacificVis IEEE Pacific Visualization Symposium: Petra Isenberg, Pierre Dragicevic  
 SIGGRAPH Pierre Dragicevic  
 TAVA Theory and Applications of Visual Analytics: Petra Isenberg  
 TEI Conference on Tangible Embedded and Embodied Interaction: Petra Isenberg  
 UbiComp International Conference on Ubiquitous Computing: Pierre Dragicevic  
 UIST ACM Symposium on User Interface Software and Technology: Pierre Dragicevic, Petra Isenberg  
     Tobias Isenberg, Yvonne Jansen  
 VAST IEEE Conference on Visual Analytics, Science, and Technology: Jean-Daniel Fekete, Petra  
     Isenberg, Tobias Isenberg

### 9.1.7. Journal Reviewing

DAMI Data Mining and Knowledge Discovery: Jean-Daniel Fekete  
 C&G Computers and Graphics: Petra Isenberg, Tobias Isenberg, Pierre Dragicevic  
 CG&A Computer Graphics and Applications: Petra Isenberg, Tobias Isenberg  
 GPEM Genetic Programming and Evolvable Machines: Évelyne Lutton  
 IJHCS International Journal of Human-Computer Studies: Petra Isenberg  
 TEC IEEE Transactions on Evolutionary Computation: Évelyne Lutton  
 TOCHI ACM Transactions on Computer-Human Interaction: Petra Isenberg, Pierre Dragicevic  
 TVCG IEEE Transactions on Visualization and Computer Graphics: Petra Isenberg, Pierre Dragicevic  
 Computer Graphics Forum Tobias Isenberg

### 9.1.8. Scientific Dissemination

- Samuel Huron and Jeremy Boy co-organized the “WIID” (Who Is Interaction Design?) conference at Centre Pompidou, Paris

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

Master:

- Module “Artificial Evolution” of ENSTA (first year, level M1, 21h, taught by Évelyne Lutton).
- Module “Complex Systems” of Agro-ParisTech (second year, level M2, 12h, taught by Évelyne Lutton).
- Module “Interactive Information Visualization” of Univ. Paris-Sud (M2, 18h, taught by Pierre Dragicevic, Jean-Daniel Fekete and Petra Isenberg),
- Module “Computer Graphics” of Univ. of Groningen (M2, taught by Tobias Isenberg),
- Module “Advanced Computer Graphics” of Univ. of Groningen (M2, taught by Tobias Isenberg),
- Module “Innovative Interactive Systems” of Univ. of Groningen (M2, taught by Tobias Isenberg).

### 9.2.2. Supervision

PhD in progress: Benjamin Bach, *Collaborative Visualization of Large Web-based Linked Datasets*, 01/2011, Emmanuel Pietriga and Jean-Daniel Fekete

PhD in progress: Nicolas Heulot, *A Study of The Interactive Process of Visual Data Mining for Multidimensional Data*, 09/2010, Michael Aupetit and Jean-Daniel Fekete

PhD in progress: Samuel Huron, *Navigation and Annotation of Heterogeneous Time-Stamped Data*, 12/2010, Jean-Daniel Fekete and Vincent Puig

PhD in progress: Yvonne Jansen, *Tangible Information Visualization*, 12/2010, Pierre Dragicevic and Jean-Daniel Fekete

PhD in progress: Charles Perin, *Visualization and Collaborative Control of Massive Multi-Structured Temporal Data*, 10/2011, Frédéric Vernier and Jean-Daniel Fekete

PhD in progress: Jeremy Boy, *Visualization for the People*, 01/2012, Françoise Detienne and Jean-Daniel Fekete

PhD in progress: Moritz Gerl, *Non-Photorealistic and Illustrative Rendering*, Tobias Isenberg

PhD in progress: Lingyun Yu, *Interactive Computer Graphics*, Tobias Isenberg

### 9.2.3. *Juries*

- Jean-Daniel Fekete was reviewer for Thomas Mirlacher's PhD: "Model-based engineering of animated interactive systems for the interactive television environment", Université de Toulouse, Dec. 2012
- Jean-Daniel Fekete was reviewer for David Auber's HdR: "Visualisation de graphes", Univ. of Bordeaux, Dec. 9 2012.
- Jean-Daniel Fekete was jury member for Micheline Elias's PhD: "Enhancing Human Interaction with Business Intelligence Dashboards", Ecole Centrale Paris (ECP), Oct. 2012
- Jean-Daniel Fekete was jury member for Michael Aupetit's HdR: "Approches topologiques pour l'analyse exploratoire de données et l'aide à la décision", 11 Jul . 2012
- Jean-Daniel Fekete was reviewer for Guillaume Artigan's PhD: "Visualisation Multi-Echelle de Graphes Clusterisés", Université de Montpellier 2, Apr. 2 2012
- Jean-Daniel Fekete was reviewer for Jean Simard's PhD: "Collaboration haptique étroitement couplée pour la déformation moléculaire interactive", Université Paris-Sud, Mar. 2012
- Tobias Isenberg was on the PhD committee for Dr. Stefan Flöring: KnoVA: A Reference Architecture for Knowledge-Based Visual Analytics; University of Oldenburg, Germany, Jul. 2012.

**IMAGINE Team**

## **9. Dissemination**

### **9.1. Scientific Animation**

#### **9.1.1. Organization of conferences and editorial boards**

- Marie-Paule Cani
  - General co-chair with Beryl Plimmer of the Expressive 2012 conference, co-sponsored by ACM SIGGRAPH and Eurographics, which grouped three international even in Annecy, in June 2012: Sketch-Based Interfaces and Modeling (SBIM), Non-protorealistic Animation & Rendering (NPAR) and Computational Aesthetics (CAe).
  - Editorial boards of Computer Graphics Forum and of Graphical Models.
  - Steering committees of Shape Modelling International (SMI) and of SBIM.
- Stefanie Hahmann
  - SPM 2012 paper chair
  - Journal CAD Vol. 45 No.2 (Elsevier), Special Issue of SPM 2012, co-editor
  - Journal Graphical Models Vol. 74 No. 6 (Elsevier), Special Issue on Geometric Modling, co-editor
- Jean-Claude Léon
  - Local chair of EXPRESSIVE 2012 conference
- Rémi Ronfard
  - Member of the program committees for the international conferences on Computational Aesthetics (CAE), Interactive Digital Storytelling (ICIDS) and Motion in Games (MIG).
  - Organization of the 3<sup>rd</sup> international workshop on 3D Cinematography in Providence, USA, during the CVPR conference, with an audience of 100 participants. The 3D Cinematography series of workshops is devoted to all areas of computer vision contributing to the generation of 3D content from live action video, including structure from motion, binocular and trinocular stereo, multi-view stereo, geometric modeling, 3D signal processing, plenoptic modeling and light field cameras.

#### **9.1.2. Management and administration of scientific organisations**

- Marie-Paule Cani
  - Co-chair with Laurence Nigay of the axis "Authoring Augmented Reality" of the LaxeB Persyval.
  - Member of the executive board of the GDR Informatique Graphique (IG), a french virtual lab sponsored by CNRS.
  - Elected member of the executive committee of EG-France, the french chapter of eurographics.
  - Elected to the executive committee of Eurographics, where she will serve as second vice president from January 2013.
  - Member of the ACM Publication board (monthly audi-confs plus two in person meetings a year, to handle new publications, changes of editors in chiefs and the publication strategy of the ACM).
- François Faure

- Member of the Conseil du Laboratoire at LJK.
- Stefanie Hahmann
  - President of GTMG (Groupe de Travail en Modelisation Géometrique) part of GDR IM and GDR IG.
  - Member of the Conseil du Laboratoire at LJK.
  - Vice chair of SIAM activity group Geometric Design.
  - Responsible of Maths-Info Department of the Grenoble doctoral school MSTII.
- Olivier Palombi
  - Member of the scientific board of ECCAMI (Excellence center for computer assisted medical interventions).
- Rémi Ronfard
  - Responsible of the *Géométrie and Images* department at LJK.
  - Member of the Conseil du Laboratoire at LJK.
  - Coordinator of a *thematic action* of the national GDR ISIS, on face, gesture, action and behavior (Visage, geste, action et comportement ), together with Catherine Achard and Patrick Horain (Télécom Paris Tech).

### 9.1.3. Public dissemination

- Marie-Paule Cani gave two key-note talks in February 2012, "Towards expressive modelling of animated virtual worlds", respectively within the key-note speech of the LIG laboratory (Laboratoire d'informatique de Grenoble) and in the Polaris colloquium "From real to virtual" sponsored by Inria Lille.
- In March 2012, Marie-Paule Cani gave the talk "Are women afraid of computer science" at the European Research Center of Xerox, at the occasion of the "woman day".
- In May, Marie-Paule Cani gave courses on modeling and animation of virtual worlds, respectively within the cursus for high-school professors in computer sciences set up by Inria, and within a symposium for "classes préparatoire" professors organized by Ensimag/Grenoble INP.
- In November 2012, Marie-Paule Cani gave a course on "high-level models for intuitive modelling and animation" to the french PhD students in Computer Graphics, within the doctoral school day in Calais co-organized by the GDR IG (Informatique Graphique) and by the french Computer Graphics association (AFIG).
- Olivier Palombi gave a talk in *journée des sciences de l'université de Gène* in Italia.
- The images of the flat torus rendered by Damien Rohmer (see chap. 6.2.2 ) have been published in several magazines: **NewScientist**, **Magazine Science**, **Universcience**, **Wired**, **IO9**, **The Aperiodical**, **Images des mathématiques**.

## 9.2. Teaching - Supervision

### 9.2.1. Responsabilities of academic programs

- Responsible of the French **Campus numérique** of anatomy, Olivier Palombi.
- Responsible and national leader of the project SIDES (<http://side-sante.org/>). All the French medical schools (43) have planned to use the same e-learning framework (SIDES) to manage evaluations (examen) and to create a large shared database of questions. Olivier Palombi
- Marie-Paule Cani and then François Faure were responsible of the GVR-(Graphics, Vision and Robotic) programm in the MOSIG Master.

Note that MOSIG is joint master program between University Joseph Fourier (UJF) and Institut Polytechnique de Grenoble (INPG) taught in English since it hosts a number of internal students. If belongs to the doctoral school MSTII.

**9.2.2. Educational activities**

- Marie-Paule Cani, 200 hours a year, Professor ENSIMAG/Grenoble INP.
- Stefanie Hahmann, 200 hours a year, Professor ENSIMAG/Grenoble INP, M2R MIA.
- Jean Claude Léon, 96 hours a year, Professor ENSE3/Grenoble INP.
- Olivier Palombi, 200 hours a year, Professor UJF, medicine.
- Damien Rohmer, 200 hours a year, Assistant Professor CPE Lyon.
- Rémi Ronfard, 18 hours, M2 Pro, UJF.

**IN-SITU Project-Team**

## 8. Dissemination

### 8.1. Scientific Animation

#### 8.1.1. *Keynote addresses and Invited Lectures*

Michel Beaudouin-Lafon: “Instrumental Interaction in Multisurface Environments”, Adobe Research, San Francisco, USA, January 2012.

Michel Beaudouin-Lafon: “Instrumental Interaction in Multisurface Environments”, CMU Silicon Valley, San Jose, USA, February 2012.

Michel Beaudouin-Lafon: “BayScope: Multisurface Interaction With Large Displays ”, Inria Silicon Valley workshop, Berkeley, USA, February 2012.

Michel Beaudouin-Lafon & Wendy Mackay: “Co-adaptive Instruments and Multisurface Environments”, University of California, Irvine, USA, April 2012.

Michel Beaudouin-Lafon & Wendy Mackay: “Co-adaptive Instruments and Multisurface Environments”, University of California, San Diego, USA, April 2012.

Michel Beaudouin-Lafon: “Of Tools and Instruments”, Dagstuhl Seminar on Interaction Beyond the Desktop, August 2012.

Michel Beaudouin-Lafon: “Du Geste à l’Instrument”, FITG, Lille, November 2012.

Michel Beaudouin-Lafon: “DataSense - Interaction and Visualization”, Launch of Labex Digicosme, Ecole Polytechnique, Palaiseau, France, September 2012.

Wendy Mackay:“Medical Applications and Paper Substrates”, Workshop on Cognitive Aids, Berkeley, California, USA, May, 2012.

Wendy Mackay: “Asking Research Questions”, Seminar, Stanford University, March 2012.

Wendy Mackay:“Supporting multi-surface interaction in Medical Emergencies”, Inria Silicon Valley Workshop, Workshop on Cognitive Aids, Berkeley, California, USA, 2012.

Wendy Mackay: “Co-Adaptive Paper”, Dagstuhl Seminar on Interaction Beyond the Desktop, August 2012.

Wendy Mackay:“Creative Composition with Interactive Paper from creative expression to generative power”, Invited Seminar, Massachusetts Institute of Technology, Massachusetts, USA, October 2012.

Wendy Mackay:“Creative Composition with Interactive Paper from creative expression to generative power”, Invited Seminar, McGill University, Montreal Canada, October 2012.

Jérémie Garcia: “Interactive Paper for Musical Composition”, Seminar Les Nouveaux Espaces de la Notation Musicale – GRAME, Lyon, France, April 2012

Stéphane Huot: “Designing Advanced Interaction for High-Resolution Visualization Platforms”, 6th Seminar of Institut Farman – ENS Cachan, Cachan, France, November 2012

Emmanuel Pietriga: “Interfaces graphiques innovantes pour la visualisation de masses de données et le contrôle de systèmes complexes”, SIGCHI Local Chapter, Toulouse, France, June 2012

Cyprien Pindat: “JellyLens: Content-Aware Adaptive Lenses”, VISU 2012 seminar, Paris, France, September 2012

Theophanis Tsandilas: “Interpreting Strokes on Paper with a Mobile Assistant”, Forum sur l’interaction Tactile et Gestuelle, Tourcoing, France, November 2012

Theophanis Tsandilas: "Supporting Music Composition with Paper and Computers", Inria Sophia Antipolis, France, November 2012

### **8.1.2. Journal editorial board**

- Communications of the ACM (CACM), ACM: Wendy Mackay (Member of Editorial Board)
- Transactions on Computer-Human Interaction (TOCHI), ACM: Michel Beaudouin-Lafon (Associate Editor)
- International Journal of Human-Computer Studies (IJHCS), Elsevier: Michel Beaudouin-Lafon (Member of the Advisory Board)
- International Journal on Semantic Web and Information Systems (IJSWIS): Emmanuel Pietriga (Editorial board, special issue on Visualisation of and Interaction with Semantic Web Data)
- Journal of Computer-Supported Cooperative Work (JCSCW), Springer: Michel Beaudouin-Lafon (Member of the Advisory Board)
- Journal of Visual Languages and Computing (JVLC), Elsevier: Emmanuel Pietriga (Guest Editor)

### **8.1.3. Journal reviewing**

- Transactions on Computer-Human Interaction (TOCHI), ACM: Caroline Appert, Olivier Chapuis, Wendy Mackay, Emmanuel Pietriga
- Transactions on Visualization and Computer Graphics (TVCG): Anastasia Bezerianos
- International Journal of Human-Computer Studies (IJHCS), Elsevier: Caroline Appert, Anastasia Bezerianos
- Human-Computer Interaction (HCI), Taylor & Francis: Michel Beaudouin-Lafon, Olivier Chapuis
- Software: Practice and Experience, Wiley: Emmanuel Pietriga

### **8.1.4. Conference organization**

- ACM CHI 2013 Program Committee Meeting - ACM Conference on Human Factors in Computing Systems: Wendy Mackay (General Chair), Michel Beaudouin-Lafon (Technical Program Committee Co-Chair)
- ACM CHI 2012 - ACM Conference on Human Factors in Computing Systems: Caroline Appert (Program Committee member), Olivier Chapuis (Program Committee member), Emmanuel Pietriga (Program Committee member)
- ACM ECRC 2012 - First ACM European Computer Research Congress: Michel Beaudouin-Lafon (Organizing Committee member)
- ACM UIST 2012 - ACM Symposium on User Interface Software and Technology: Caroline Appert (Program Committee member)
- ACM NordiCHI 2012 - Nordic forum for human-computer interaction research: Emmanuel Pietriga (Program Committee member)
- IEEE VL/HCC 2012 - IEEE Symposium on Visual Languages and Human Centric Computing: Emmanuel Pietriga (Program Committee member)
- IEEE Symposium on Visual Languages and Human Centric Computing: Emmanuel Pietriga (Steering Committee member, chair since September 2011)
- IEEE PacificVis 2012 - Pacific Visualization Symposium: Anastasia Bezerianos (Program Committee member)
- ACM WWW 2012 (Tutorials) - ACM World Wide Web: Emmanuel Pietriga (Program Committee member)
- ACM CHI 2012 Panel "RepliCHI": Wendy Mackay (Panelist and Co-Organizer)
- SIGRAD 2012 - Eurographics Nordic forum for computer graphics and visualization

### **8.1.5. Conference reviewing**

ACM CHI 2012: Caroline Appert, Michel Beaudouin-Lafon, Anastasia Bezerianos, Olivier Chapuis, Jérémie Garcia, Stéphane Huot, Wendy Mackay, Mathieu Nancel, Emmanuel Pietriga, Daniel Spelmezan, Theophanis Tsandilas

ACM UIST 2012: Michel Beaudouin-Lafon, David Bonnet, Olivier Chapuis, Stéphane Huot, Wendy Mackay, Mathieu Nancel, Emmanuel Pietriga, Theophanis Tsandilas, Julie Wagner

ACM CSCW 2012 - ACM Conference on Computer Supported Cooperative Work: Emmanuel Pietriga

ACM EICS 2012 - ACM Symposium on Engineering Interactive Computing Systems: Emmanuel Pietriga

ACM MobileHCI 2012 - ACM Conference on Human Computer Interaction with Mobile Devices and Services: Olivier Chapuis, Stéphane Huot, Daniel Spelmezan

ACM NordiCHI 2012: David Bonnet, Olivier Chapuis, Can Liu, Mathieu Nancel

ACM DIS 2012 - ACM Conference on Designing Interactive Systems: Michel Beaudouin-Lafon, Mathieu Nancel

TEI 2012 - Conference on Tangible Embedded and Embodied Interaction: Caroline Appert

IUI 2012 - International Conference on Intelligent User Interfaces: Michel Beaudouin-Lafon, Stéphane Huot

IEEE InfoVis 2012 - IEEE Information Visualization Conference: Anastasia Bezerianos, Emmanuel Pietriga

IEEE PacificVis 2012 - IEEE Pacific Visualization Symposium: Anastasia Bezerianos, Mathieu Nancel

IEEE VAST 2012 - Visual Analytics Software and Technology: Anastasia Bezerianos, Emmanuel Pietriga

IEEE SciVis 2012 - Visual Analytics Software and Technology: Emmanuel Pietriga

Ergo'IHM 2012: Stéphane Huot

### **8.1.6. Scientific associations**

ACM: Michel Beaudouin-Lafon member of the ACM Europe Council (since 2009)

ACM SIGCHI Paris Local Chapter: Anastasia Bezerianos (Vice Chair), Julie Wagner (Seminars Co-Organizer, Webmaster)

AFIHM (French speaking HCI association): Michel Beaudouin-Lafon member of the Scientific Board (CPPMS), Stéphane Huot member of the Scientific Board (CPPMS) since 2012

ACM SIGCHI: Wendy Mackay, member of CHI Conference Management Committee (since 2011)

### **8.1.7. Evaluation committees and invited expertise**

European Research Council (ERC): Michel Beaudouin-Lafon (SYNERGY Grants panel member)

Steering Committee for ANR CONTINT, National Research Agency, member: Michel Beaudouin-Lafon

ALLISTENE (Alliance des Sciences et Technologies du Numérique) working group on Knowledge, Content and Interaction, members: Wendy Mackay, Michel Beaudouin-Lafon

IRCAM (Paris) Scientific Committee, member: Michel Beaudouin-Lafon

TELECOM ParisTech Research Committee, member: Michel Beaudouin-Lafon

CIGREF Scientific Council, member: Michel Beaudouin-Lafon

Expert reviewer for NSERC (Canada): Michel Beaudouin-Lafon

Expert reviewer for ANR: Caroline Appert, Olivier Chapuis, Stéphane Huot, Emmanuel Pietriga, Wendy Mackay

Univ. Paris-Sud hiring committee, Commission Consultative des Spécialistes de l'Université 27ème section (computer science), members: Michel Beaudouin-Lafon, Stéphane Huot, Wendy Mackay

Univ. Paris-Sud hiring committee, Comité de Sélection 27ème section (computer science), members: Michel Beaudouin-Lafon

Univ. Paul Sabatier (Toulouse) hiring committee, Comité de Sélection 27ème section (computer science), members: Caroline Appert, Stéphane Huot

### **8.1.8. Awards**

Wendy Mackay: European Research Council Advanced Grant

## **8.2. Teaching - Supervision - Juries**

### **8.2.1. Teaching**

Master : Caroline Appert (Lecturer), “Evaluation of interactive systems”, 50h, ICT Labs Masters in Computer Science - Human-Computer Interaction and Design Specialty (M1), Université Paris-Sud, France

Master : Caroline Appert, “Internships coordination”, 5h, Research Masters in Computer Science - Interaction Specialty (M2), Université Paris-Sud, France

Master : Michel Beaudouin-Lafon, “General Master coordination”, 10h, ICT Labs Masters in Computer Science - HCID Specialty (M1), Université Paris-Sud, France

Master : Michel Beaudouin-Lafon, “General Master coordination”, 10h, Research Masters in Computer Science - Interaction Specialty (M2), Université Paris-Sud, France

Master : Michel Beaudouin-Lafon (Lecturer), “Fundamentals of Human-Computer Interaction”, 25h, Research Masters in Computer Science - HCI Specialty (M2) & ICT Labs Masters in Computer Science - Human-Computer Interaction and Design specialty(M1), Université Paris-Sud, France

Master : Michel Beaudouin-Lafon (Lecturer), “Groupware and Collaborative Interaction”, 20h, Research Masters in Computer Science - Interaction Specialty (M2), Université Paris-Sud, France

Master : Michel Beaudouin-Lafon (Lecturer), “Human-Computer Interaction project”, 15h, ICT Labs Masters in Computer Science - Human-Computer Interaction and Design specialty (M1), Université Paris-Sud, France

Master : Anastasia Bezerianos (Lecturer), “General Master coordination”, 10h, Masters in Computer Science - ICT Labs Masters in Computer Science - Human-Computer Interaction and Design specialty (M1), Université Paris-Sud, France

Master : Anastasia Bezerianos (Lecturer), “General Master coordination”, 10h, Research Masters in Computer Science - Interaction Specialty (M2), Université Paris-Sud, France

Master : Anastasia Bezerianos (Lecturer), “Programming of Interactive Systems”, 24h, ICT Labs Masters in Computer Science - Human-Computer Interaction and Design specialty (M1), Masters in Computer Science - M1 Classic & MIAGE, Université Paris-Sud, France

Master : Anastasia Bezerianos (Lecturer), “Mixed Reality and Tangible Interaction”, 12h, Research Masters in Computer Science - Interaction Specialty (M2), Université Paris-Sud, France

Master : Anastasia Bezerianos (Lecturer), “Design and Evaluation of Interactive Systems”, 24h, ICT Labs Masters in Computer Science - Human-Computer Interaction and Design specialty (M1), Université Paris-Sud, France

Licence : Anastasia Bezerianos (Lecturer), “Développement Logiciel”, 10h, Licence Mention Informatique (L2), Université Paris-Sud, France

3eme année : Anastasia Bezerianos (Lecturer), "Interaction Homme-Machine", Polytech Paris-Sud, France

Master : David Bonnet (Teaching Assistant), "Fundamentals of Human-Computer Interaction", 25h, Research Masters in Computer Science - HCI Specialty (M2) & ICT Labs Masters in Computer Science - Human-Computer Interaction and Design specialty (M1), Université Paris-Sud, France

Licence : David Bonnet (Teaching Assistant), "Développement Logiciel", 40h, Licence 2 Mention Informatique, Université Paris-Sud, France

Licence : Jérémie Garcia (Teaching Assistant), "Développement Logiciel", 33h, Licence 2 Mention Informatique, Université Paris-Sud, France

Master : David Bonnet (Teaching Assistant), "Programming of Interactive Systems", 26h, Masters in Computer Science - HCID Specialty (M1), M1 Classic, MIAGE, Université Paris-Sud, France

Licence : Jérémie Garcia (Teaching Assistant), "Vie Artificielle", 32h, Licence 2 Mention Informatique, Université Paris-Sud, France

Undergraduate and Master: Wendy Mackay (Lecturer) "CS.377 Prototyping Interactive Systems", 40h, Computer Science, Stanford University, USA.

Undergraduate and Master: Wendy Mackay (Lecturer) "CS.294h Design of Interactive Systems", 40h, Computer Science, Stanford University, USA.

Master : Wendy Mackay (Lecturer) "Design and Evaluation of Interactive Systems" 24h, ICT Labs Masters in Computer Science - HCID Specialty (M1), Université Paris-Sud, France

Master : Wendy Mackay (Lecturer) "Design and Evaluation of Interactive Systems" 24h, Research Masters in Computer Science - HCID Specialty (M1), Université Paris-Sud, France

Master : Wendy Mackay (Lecturer) "Design and Evaluation of Interactive Systems" 24h, Professional Masters in Computer Science - HCID Specialty (M1), Université Paris-Sud, France

Master : Wendy Mackay (Lecturer) "Fondements de la Recherche" 24h, Research Masters in Computer Science - all three specialties (M2), Université Paris-Sud, France

Master : Mathieu Nancel (Teaching Assistant), "Programming of Interactive Systems", 29h, Masters in Computer Science - M1 Classic & MIAGE, Université Paris-Sud, France

Licence : Mathieu Nancel (Teaching Assistant), "Ceritificat Informatique et Internet", 3h (tutoring), Licence Mention Informatique (L1), Université Paris-Sud, France

3eme année : Mathieu Nancel (Teaching Assistant), "Bases de données", 20h, Polytech Paris-Sud, France

3eme année : Mathieu Nancel (Teaching Assistant), "Interaction Homme-Machine", 24h, Polytech Paris-Sud, France

Master : Theophanis Tsandilas (Guest Lecturer), "Introduction to Human-Computer Interaction", 4.5h, DMKM Erasmus Mundus (M2), Polytech'Nantes, France

Master Thesis Supervision: Anastasia Bezerianos, Olivier Chapuis, "Navigating large information spaces on wall displays using mobile devices", student: Stelios Frantzeskakis, Université Paris-Sud, France

Master Thesis Supervision: Theophanis Tsandilas, Anastasia Bezerianos, "Linking digital tabletops with physical paper for creative interactions", student: Jéronimo Barbosa, Universidade Federal de Pernambuco (CIn/UFPE), Recife, Brazil

Master Thesis Supervision: Olivier Chapuis, Carolien Appert "Focus+Context Navigation and Interaction on Graphical Tablets", student: Lei Chen, Telecom Brest, France

### **8.2.2. Supervision**

HDR: Emmanuel Pietriga, "Languages and Interaction Techniques for the Visualization and Manipulation of Massive Datasets", Université Paris-Sud, June 8th, 2012.

Ph.D.: Mathieu Nancel, "Designing and Combining Interaction Techniques in Large Display Environments", Université Paris-Sud, December 5th, 2012, Michel Beaudouin-Lafon and Emmanuel Pietriga.

Ph.D.: Julie Wagner, "A Body-centric Framework for Generating and Evaluating Novel Interaction Techniques", Université Paris-Sud, December 6th, 2012, Wendy Mackay and Stéphane Huot.

Ph.D.: Émilien Ghomi, "Studying expert practices as a basis for designing expressive interaction techniques", Université Paris-Sud, December 17th, 2012, Michel Beaudouin-Lafon and Stéphane Huot.

Ph.D.: Micheline Elias, "Semantic Information Retrieval and Visualization in Business Intelligence Dashboards", École Centrale de Paris, October 14th, 2012, Anastasia Bezerianos and Marie-Aude Aufaure (École Centrale de Paris)

Ph.D. in progress: David Bonnet, "Gesture-based interactions and instrumental interaction", started in September 2011, Michel Beaudouin-Lafon and Caroline Appert

Ph.D. in progress: Jérémie Garcia, "Supporting creative activities with interactive paper", started in September 2010, Wendy Mackay and Theophanis Tsandilas

Ph.D. in progress: Cyprien Pindat, "Multi-dimensional exploration of complex multi-scale data", started in September 2010, Claude Puech, Olivier Chapuis and Emmanuel Pietriga

Ph.D. in progress: Can Liu, "Collaborative Multiscale Navigation and Interaction", started in September 2012, Michel Beaudouin-Lafon, Olivier Chapuis and Eric Lecolinet (Télécom Paris-Tech)

Ph.D. in progress: Daniel Strazzulla, "Multimedia Communication", started in September 2012, Wendy Mackay

### 8.2.3. *Juries*

Sarah Alaoui (LIMSI, Univ. Paris-Sud, Orsay): Michel Beaudouin-Lafon (president), December 2012.

Jérôme Azé (LRI, Univ. Paris-Sud, Orsay - Habilitation): Michel Beaudouin-Lafon (president), November 2012.

Géry Casiez (LIFL, Univ. Lille 1, Lille - Habilitation): Michel Beaudouin-Lafon, (reviewer), November 2012.

Mathias Baglioni (Télécom ParisTech, Paris): Stéphane Huot (examiner), April 2012.

Aurélie Cohé (Univ. Bordeaux 1, Bordeaux): Caroline Appert (examiner), December 2012.

Micheline Elias (PhD, École Centrale de Paris, October 14th, 2012): Anastasia Bezerianos (advisor).

Mathieu Nancel (Ph.D., Université Paris-Sud, December 5th, 2012), Michel Beaudouin-Lafon (director) and Emmanuel Pietriga (advisor).

Emmanuel Pietriga (HDR, Université Paris-Sud, June 8th, 2012), Wendy Mackay (jury).

Julie Wagner (Ph.D., Université Paris-Sud, December 6th, 2012), Wendy Mackay (director) and Stéphane Huot (advisor).

Émilien Ghomi (Ph.D., Université Paris-Sud, December 17th, 2012), Michel Beaudouin-Lafon (director) and Stéphane Huot (advisor).

## 8.3. Popularization

- Wendy Mackay: "Les Dossiers de la Recherche, Entretien avec Wendy Mackay : Les tablettes seront de plus en plus interactives", *La Recherche*, June 2012
- Michel Beaudouin-Lafon, Romain Primet: "La Plateforme WILD", Presentation of WILD to High School students, November 2012.

- Michel Beaudouin-Lafon, Romain Primet: "WILD: An interactive platform for visualizing high-resolution data" Delegation from Chile (government and academia), November 2012.
- Wendy Mackay, Romain Primet: "WILD: une plateforme de visualisation interactive haute résolution" Presentation of WILD to HEC students, December 2012.
- Emmanuel Pietriga, Roman Primet: "La Plateforme WILD", Presentation of WILD to visitors from the French Ministry of Research and Inria's Administration Council, April 2012.
- Roman Primet: Presentation of WILD to industrial visitors of LRI, Visite des Industriels, Fête de la Science, October 2012.
- Theophanis Tsandilas, Julie Wagner, and Émilien Ghomi: Presentations for "Who is interaction design?", Centre Pompidou, Future en Seine, June 2012.

## MANAO Team

# 7. Dissemination

## 7.1. Scientific Animation

### 7.1.1. Program committee

- **Conferences:** Web3D 2012, ACM SIGGRAPH Asia 2012 (posters)

### 7.1.2. Reviews

The members of *MANAO* have also participated to the reviewing process for conferences and journals:

- **Journals:** ACM Transaction on Graphics, Computer and Graphics, Computer Graphics Forum, The Visual Computer, Signal Image and Video Processing.
- **Conferences:** ACM Siggraph 2012, ACM Siggraph Asia 2012, Eurographics 2013, Eurographics Symposium on Rendering 2012, Graphics interface (GI) 2012, CGI 2012, Web3D 2012

### 7.1.3. Committees

In 2012, the members of *MANAO* have been involved in the following responsibilities:

- Inria - Evaluation committee member - Gaël Guennebaud.
- Inria Bordeaux - commission for technological development (CDT) - Gaël Guennebaud.
- AFIG - Best paper jury - Romain Pacanowski, Gaël Guennebaud.

## 7.2. Teaching - Supervision - Juries

### 7.2.1. Teaching

The members of our team are implied in teaching computer science at University Bordeaux 1 and 2, ENSEIRB Engineering School, and IOGS. General computer science is concerned, as well as the following graphics related topics:

Master : Xavier Granier, Algorithmic and Numerical Algorithmes, 30HETD, M1, IOGS, France

Master : Xavier Granier and Romain Pacanowski, Radiometry and Colorimetry, 15HETD, M1, IOGS, France

Master : Gaël Guennebaud and Simon Boyé, High-performance 3D Graphics, 60HETD, M1, Univ. Bx 1, France.

Master : Gaël Guennebaud and Simon Boyé, Physically based Image Synthesis, 60HETD, M2, Univ. Bx 1, France.

Master : Romain Pacanowski, Simon Boyé, Object-Orientated Programming, 60HETD, M1, IOGS, France

Some members are also in charge of some fields of study:

Master : Xavier Granier, Optics and Computer Science, M1/M2 , IOGS, France.

License : Patrick Reuter, Science and Modeling, L2, Univ. Bx 2, France.

### 7.2.2. Supervision

HdR : Ivo Ihrke, Computational Optical Measurement and Display: Case Studies in Plenoptic Imaging and Projection, Univ. Bordeaux 1, 7th of December, Xavier Granier

PhD : Simon Boyé, Représentation hybride pour la modélisation géométrique interactive, Univ. Bordeaux 1, 12th of December, Gaël Guennebaud and Christophe Schlick.

PhD : Jiazhou Chen, Image structures: From augmented reality to image stylization, Université Sciences et Technologies - Bordeaux I, 12th of July, Xavier Granier and Qunsheng Peng and Pascal Barla

PhD : Nicolas Mellado, Analyse des objets 3D à plusieurs échelles: application à l'assemblage de formes, Univ. Bordeaux 1, 6th of December, Patrick Reuter and Christophe Schlick.

### 7.2.3. Juries

PhD : Anthony Pajot, Toward robust and efficient physically-based rendering, Université de Toulouse, 26th of April, Examiner

PhD : Jonathan Claustres, Modèle particulaire 2D et 3D sur GPU pour plasma froid magnétisé : application à un filtre magnétique, Université de Toulouse, 17th of December, Examiner

## 7.3. Popularization

### 7.3.1. Exhibitions

Our results of the ANR SeARCH project (see Section 6.2.1 ) applied to the Alexandria lighthouse were one of the key event of the exhibition dedicated to lighthouses at the "musée de la marine" in Paris.

### 7.3.2. Interviews

Our work on 2D images deformations and vector graphics has lead to interviews published on 3DVF.com, the most important french online magazine on image synthesis and numeric content creation in general.

- <http://www.3dvf.com/dossier-874-1-interview-surface-flows-publication-presentee-lors-siggraph-2012.html>
- <http://www.3dvf.com/actualite-4893-recherche-free-form-vector-gradients.html>

Moreover, the french radio channel "France Inter" published an interview about the leader *MANAO*of the ANR SeARCH project.

### 7.3.3. Articles

The french daily newspaper "Le monde" and the french bi-mestrial science magazine "Science Magazine" have published rather long reports on the ANR SeARCH project where *MANAO*is the leader.

## **MAVERICK Team**

# **8. Dissemination**

## **8.1. Scientific Animation**

- Georges-Pierre Bonneau is member of the recruitment committee of associate professors at UJF.
- Georges-Pierre Bonneau is member of the IPCs of EUROVIS 2012.
- Joëlle Thollot is member of the IPCs of NPAR 2012.
- Joëlle Thollot is member of the IPCs of Computational Aesthetics 2012.
- Nicolas Holzschuch is program chair of the Eurographics Symposium on Rendering 2012,
- Nicolas Holzschuch is member of the "Commission d'évaluation" of Inria,
- Romain Vergne is member of the jury for the best paper at AFIG 2012.

## **8.2. Teaching - Supervision - Juries**

### **8.2.1. Teaching**

Joëlle Thollot and Georges-Pierre Bonneau are both full Professor of Computer Science. Romain Vergne is an associate professor in Computer Science. They teach general computer science topics at basic and intermediate levels, and advanced courses in computer graphics and visualization at the master levels. Nicolas Holzschuch teaches computer graphics at intermediate and advanced levels. Fabrice Neyret taught a course called "Science and Society" to master and doctorate students at the university of Rennes.

Joëlle Thollot, 200 hours a year, professor, ENSIMAG/Grenoble INP.

Georges-Pierre Bonneau, 200 hours a year, professor, Polytech/Grenoble UJF.

Romain Vergne, 200 hours a year, associate professor, IM2AG/Grenoble UJF.

Nicolas Holzschuch, 53 hours a year, DR2 Inria.

Fabrice Neyret, 3 hours a year, DR2 CNRS.

### **8.2.2. Supervision**

PhD : Nassim Jibai, Multi-scale Feature-Preserving Smoothing of Images and Volumes on GPU, Université de Grenoble, May 2012, Nicolas Holzschuch, Jean-Philippe Farrugia.

PhD : Laurent Belcour, A Frequency Analysis of Light Transport: from Theory to Implementation, Université de Grenoble, November 2012, Nicolas Holzschuch, Cyril Soler.

PhD : Mahdi Bagher, Material appearance: photorealistic representation and rendering, Université de Grenoble, November 2012, Cyril Soler, Nicolas Holzschuch.

PhD : Alexandre Coninx, Visualisation interactive de grands volumes de données incertaines : pour une approche perceptive, Université de Grenoble, May 2012, Georges-Pierre Bonneau, Jacques Droulez.

PhD in progress : Eric Heitz, Représentations alternatives pour le traitement haute qualité efficace des scènes complexes, October 2010, Fabrice Neyret.

PhD in progress : Manuel Vennier, Modèles pour l'animation et le rendu temps réel d'océans à des échelles multiples, December 2010, Fabrice Neyret, Joëlle Thollot.

PhD in progress : Léo Allemand-Giorgis, Visualisation de champs scalaires guidée par la topologie, October 2012, Georges-Pierre Bonneau, Stefanie Hahmann.

PhD in progress : Benoît Zupancic, acquisition of reflectance properties using compressive sensing, October 2012, Nicolas Holzschuch, Cyril Soler.

PhD in progress : Hugo Loi, Automatisation de la génération de textures vectorielles et application à la cartographie, October 2012, Joëlle Thollot, Thomas Hurtut.

PhD in progress : Alexandre Derouet-Jourdan, Courbes dynamiques : de la capture de formes géométriques à l'animation, September 2012, Florence Bertails-Descoubes, Joëlle Thollot.

### **8.2.3. Juries**

- Georges-Pierre Bonneau was rapporteur at the PhD defense of Minh-Duc Huynh on July 2012, at the university of Pau.
- Joëlle Thollot was rapporteur at the PhD defense of Bert Buchholz on December 2012, at Paritech (Paris).
- Joëlle Thollot was rapporteur at the PhD defense of Jiazhou Chen on July 2012, at the university of Bordeaux 1.

## **8.3. Popularization**

Fabrice Neyret made the following diffusions:

Articles about diffusion of critical thinking and scientific method (Observatoire Zététique, newsletter + website):

- "Analysis of a dr Labré's conference about 'alternative medicine': wrong obviousness and hidden contradictions."
- "Voices in my home ! Spirits or pareidolia ?"
- "Astrology lived from inside."

Actions for high-school students:

- MobiNet, free graphical programmable simulation software ( <http://mobinet.imag.fr> )
- MobiNet class sessions: "maths & phys with meaning / how videogames and simulations are made ?". 8 high-school classes per year through INPG "engineering weeks" with regional funding.
- MobiNet class sessions: through MathC2+regional operation for high schools hosted by Inria.

Public debates and conferences:

- Jury + debate at Science-Po Grenoble about "virtuality and democracy"
- 3h in the Master transversal module about researcher responsibility (140 master & PhD students from all domains of Biology-Agronomy-Health at Rennes University )

Large public press and books:

- participation to the paper "History of Computer Graphics" in La Recherche
- "Sciences of 3D", book in preparation at Belin-PLS ed.

## MIMETIC Team

# 8. Dissemination

## 8.1. Scientific Animation

### 8.1.1. Scientific Community Animation

- F. Multon: **Leader** of the Mimetic research team
- F. Multon: **Member** of the European Society of Biomechanics, the ACM association, the IEEE association, the Computer Society association, the Eurographcis association, the European Society of Biomechanics, the French "Societe de Biomecanique", the French "Association Française de Realite Virtuelle", **Reviewer** Journal of Biomechanics, IEEE Transaction of Affective Computing, CASA internation conference, Computer Methods in Biomedical Engineering journal, Computer & Graphics journal, Eurographics 2011, IEEE International Symposium on Robot and Human Interactive Communication conference, IEEE TVCG journal, **Program Committee member** of ACM SIGGRAPH Asia (Sketches and posters), Motion in Games Conference MIG2011, SKILLS conference, **Scientific expert** for "Pole Productique de Bretagne", and Auteo association, in ergonomics, **Guest editor** of Presence - Mit Press, VR & Sports special issue: Benoit Bideau, Richard Kulpa, Franck Multon, **Program chair** of Simulation of Sports Motion co-located with CASA2011, and of the 3rd sino-French Symposium in QingDao 2012, **Session chairman** of "Modélisation musculo-squelettique" in ACAPS'2011 conference and "Analyses Biomécanique de la performance motrice" in ACAPS'2011, **Conference Chair** of Motion in Games 2012, **Associate Editor** of the Presence journal MIT Press since 2012.
- M. Christie: **Member** of Eurographics, AFIG and AFRV, **Reviewer for** Eurographics 2012, Foundations of Digital Games 2012, IEEE Visualisation 2012, **Reviewer for journals** Computer Graphics Forum, Transactions on Visualisation and Computer Graphics, Transactions on Multimedia, Transactions on Graphics, **Scientific expert** for Candadian NSERC fundings, **Session chair** at MIG 2012.
- R. Kulpa: **Reviewer** for IEEE VR, Siggraph Asia, New Media & Society; **Leader** of a European Intensive Program called "Routine & Cutting-edge Technologies in Physical Activity: Implication for Health & Sport Performance" with the Queen's University of Belfast and the Universitat de Valencia.
- F. Lamarche: **Reviewer** for Computer Animation and Virtual Worlds. **PhD Committee** of Hakim Soussi.
- J. Pettré: **Member** of ACM and IEEE associations, **Reviewer for** Transactions on Graphics, Siggraph, Siggraph Asia, Eurographics, Pacific Graphics, Computer Animation and Social Agents, ACM/Eurographics Symposium on Computer Animation, IEEE Transactions on Visualization and Computer Graphics, Computer Animation and Virtual Worlds, ICRA, VR, Journal of Computational Science, Computer Graphics Forum, Autonomous Robots, Motion in Game Conference, **Program Committee member** of Pacific Graphics, Symposium on Computer Animation, International Conference on Computer Graphics Theory and Applications **Scientific expert** for ANR
- A. Crétual: **Reviewer** of Medical & Biological Engineering & Computing, Journal of Electromyography and Kinesiology, American Journal of Physical Medicine & Rehabilitation, Journal of Musculoskeletal & Neuronal Interactions, Prosthetics & Orthotics International, **Editorial Board** of Journal of Electromyography and Kinesiology, **PhD Committee** of Caroline Moreau, **Scientific expert** for ANR TecSan program, PCCA (Romanian equivalent of French ANR).

## 8.2. Teaching - Supervision - Juries

### 8.2.1. Teaching

Master:

- R. Kulpa: Biomechanics and scientific programming, University of Rennes 2, Computer Animation IUT Bordeaux 1.
- F. Lamarche: Computer Animation ESIR IN, AI for Video Games ESIR IN, Real Time Rendering and Computer Animation MASTER GL, IFSIC - MIT, ENS CACHAN/RENNES.
- F. Multon: Master of Computer Science Ifsic : Image and Motion; MASTER OF PHYSICAL EXERCISE University Rennes2
- A. Crétual: Master course on Sports or pathological Gesture analysis, Univ. Rennes 2
- M. Christie, Multimedia and Android, 48h, M2 GL/MITIC/MIAGE, University of Rennes 1

### 8.2.2. Supervision

HdR: Benoît Bideau, "Biomécanique du mouvement et interactions sportives", University of Rennes 2, Nov. 2012 [3].

PhD: Samuel Lemercier, "Simulation du comportement de suivi dans une foule de piétons à travers l'expérience, l'analyse et la modélisation", Université de Rennes 1, Avril 2012, supervised by Stéphane Donikian and Julien Pettré [4].

PhD: Anthony Sorel, "Gestion de la variabilité morphologique pour la reconnaissance de gestes naturels à partir de données 3D", Université de Rennes 2, Dec. 2012, supervised by Franck Multon and Richard Kulpa [6].

PhD: Thomas Lopez, "Planification de chemin et adaptation de posture en environnements dynamiques.", INSA Rennes, March 2012, supervised by Stéphane Donikian and Fabrice Lamarche [5].

PhD: Kristell Bervet, "Kerpape-Rennes-EMG-based-Gait-Index: Définition d'un index de quantification de la marche pathologique par électromyographie", Université de Rennes 2, Sep. 2012, supervised by Armel Crétual [2].

PhD: Edouard Auvinet, "Analyse d'information tri-dimensionnelle issue de systèmes multi-caméras pour la détection de la chute et l'analyse de la marche", PhD STAPS (Sports Sciences) University Rennes2 and Biomedical Engineering Université de Montreal, June 14th 2012, Franck Multon and Jean Meunier (co-supervised PhD) [1].

## MINT Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

### **Invited talks:**

- “From input devices to interaction techniques”: G. Casiez, University of Waterloo, Canada (June)
- “Les interfaces du passé ont encore de l’avenir”: N. Roussel, L3I, La Rochelle (July 5th)
- “Les interfaces du passé ont encore de l’avenir”: N. Roussel, SIGCHI Toulouse (June 18th)
- "Une démarche art-science" L. Grisoni, journée Contact innovation, Ministère de la recherche, Paris (january 17th)
- "gesture toolkit through artistic experiments": L. Grisoni, Workshop on movement qualities and physical models visualizations, IRCAM (Paris), (march 2nd).
- "Art and research, open source and open minds": L. Grisoni, main track/Open-Arts session, FoSSa 2012 conference, Lille (december 5th)
- inter-regional meeting organized by pole images of Liege, november 9th: L. Grisoni, 15 minutes talk on collaboration with V. Ciciliato (artistic installation tempo scaduto, Fresnoy)

### **Journal editorial board:**

- **Journal d’Interaction Personne-Système** (JIPS): N. Roussel (co-editor in chief), G. Casiez

### **Journal reviewing:**

- Interacting with Computers (Elsevier): N. Roussel
- Lavoisier, art-science: L. Grisoni

### **Conference organization:**

- **FITG 2012**, the third *Forum on Tactile and Gestural Interaction*: N. Roussel, co-organizer
- **Ergo’IHM 2012**: N. Roussel, short papers chair
- **Ergo’IHM 2012**: T. Pietrzak, program committee
- ACM UIST 2012: G. Casiez, program committee
- ACM VRST 2012: G. Casiez, program committee
- VRIPHYS 2012 (workshop on Virtual Reality and Physical Simulation): L. Grisoni, program committee

### **Conference reviewing:**

- ACM CHI 2012: N. Roussel, T. Pietrzak, L. Grisoni (3D workshop)
- ACM UIST 2012: N. Roussel, T. Pietrzak
- ACM Mobile HCI 2012: T. Pietrzak
- ACM NordiCHI 2012: T. Pietrzak
- WWW 2012: N. Roussel (poster track)
- VRST 2012: N. Roussel
- TEI 2012: G. Casiez
- Ergo’IHM 2012: N. Roussel, G. Casiez, T. Pietrzak, L. Grisoni

**Scientific associations:**

- **AFIHM**, the French speaking HCI association: N. Roussel and T. Pietrzak, members of the Executive Committee (vice-president and secretary since November 2011)
- RTP (pluridisciplinary thematic network) **Visual studies** (2010-2012): L. Grisoni, member of the RTP board
- SCV (Science et culture du visuel) **website**: L. Grisoni, scientific board, responsible of the art-science activity. This initiative covers the CNRS scientific project ICAVS, and the funded equipex project IrDIVE (2012-2020).
- SCV (Science et culture du visuel) **website**: S. Degrande, leader of Virtual Reality room design (funded by equipex IrDIVE).
- LIFL (University Lille 1 Computer science laboratory) council: L. Grisoni

**Evaluation committees and invited expertise:**

- **uTOP** (open university project) working groups: N. Roussel
- **UNIT** (engineering and technology digital university) scientific committee: N. Roussel
- Inria's *Science mediation* committee: N. Roussel
- Inria's admission jury for junior researcher positions: N. Roussel
- Université Lille 1, Computer Science hiring committees: L. Grisoni, G. Casiez, N. Roussel (PR 0498 & PR 1631)
- Université Paul Sabatier, Toulouse, Computer Science hiring committee: N. Roussel (MCF 0822)
- Université de Bretagne Orientale, Brest, Computer Science hiring committee: L. Grisoni (PR 0030)
- Université de Lille 3, Psychology hiring committee: L. Grisoni (PR 0457)
- ANR emergence axes 2 et 3: L. Grisoni (review)
- ANR INS ingénieur num et sécurité: L. Grisoni (review)
- ANR JCJC SIMI2 : L. Grisoni (review)
- ANRT CIFRE: L. Grisoni (review)

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

**Licence**

- Introduction to Programming, 48h, L1, University of Lille, France, F. Aubert
- Advanced Programming, 36h, L3, University of Lille, France, F. Aubert, G. Casiez
- Compilation, 36h, L3, University of Lille, France, T. Pietrzak
- Algorithms and data structures, 36h, L3, University of Lille, France, T. Pietrzak
- Algorithms and imperative programming, 40h, L2, University of Lille, France, T. Pietrzak

**Master**

- Introduction to Computer Graphics, 42h, M1, University of Lille, F. Aubert
- Human-Computer Interaction, 48h, M1, University of Lille, G. Casiez, L. Grisoni, P. Plénacoste, T. Pietrzak
- Multi-Touch Interaction, 24h, M1, University of Lille, G. Casiez, F. Aubert
- Advanced 3D modeling, 20h, M2, University of Lille, L. Grisoni, F. Aubert
- Virtual Reality, 36h, M2, University of Lille, G. Casiez, F. Giraud, F. Aubert, T. Pietrzak
- Artificial Vision, 12h, M2, University of Lille, G. Casiez, L. Grisoni
- Multitouch interaction, 7h, M2, Telecom Lille 1, G. Casiez
- Gesture recognition, 5h, M2, Telecom Lille 1, G. Casiez
- Introduction to virtual reality, 3h, M2, Telecom Lille 1, G. Casiez
- Human-Computer Interaction, 24h, M2, Polytech'Lille, G. Casiez, L. Grisoni
- Human-Computer Interaction, 6h, G2, Ecole Centrale de Lille: N. Roussel
- Introduction to Unity for Virtual Reality, 10h, M2, University of Lille: D. Marchal
- Game Developement with Unity, 8h, Formation professionnelle, University of Lille: D. Marchal

### **9.2.2. Supervision**

#### Completed Habilitation thesis

Géry Casiez, "Du mouvement à l'interaction et au geste : études, techniques, outils et périphériques", Lille 1 Univ., November 12th 2012, [11]

Frédéric Giraud, "Modélisation et commande des actionneurs piézoélectriques : des applications mécatroniques au domaine de la réalité virtuelle", Lille 1 Univ., March 19th 2012

#### Completed PhD thesis

T. Zheng, "Actionneurs piézo-électriques dans des interfaces homme-machine à retour d'effort", Lille 1 Univ., March 23rd 2012, co-advised by B. Lemaire-Semail and F. Giraud

J-P. Deblonde, "Exploitation de la dynamique du geste en IHM - Application aux fonctions de transfert pour le pointage et l'extraction d'événements discrets", Lille 1 Univ., September 28th 2012, co-advised by L. Grisoni and G. Casiez, [12]

#### Ongoing PhD thesis

N. Bremard, "interaction hybride via smartphone", Lille 1 Univ., started December 2012, advised by L. Grisoni

J. Aceituno, "Designing the ubiquitous desktop", Lille 1 Univ., started October 2011, advised by N. Roussel

J. Gilliot, "Indirect multi-touch interaction", Lille 1 Univ., started December 2010, co-advised by N. Roussel and G. Casiez

Y. Rekik, "Multi-finger gestural interaction", Lille 1 Univ., started September 2010, co-advised by L. Grisoni and N. Roussel

E-G. Craciun, "Nouvelles interfaces pour la simulation des opérations d'assemblage dans des environnements virtuels ", Suceava Univ. (Romania), started October 2009, co-advised by L. Grisoni and S-G. Pentiu

C. Moerman, "Interactions multi-touch intuitive sur un contenu 3D, application à l'agencement virtuel d'habitation ", Lille 1 Univ., started October 2009, co-advised by C. Chaillou and L. Grisoni

D. Selosse, "Annotation interactive de modèles 3D, application à la reconstruction ", Lille 1 Univ., started October 2009, co-advised by L. Grisoni and J. Dequidt

### **9.2.3. Juries**

#### Habilitation committees

- Géry Casiez (Lille 1 Univ., November 2012): N. Roussel, warrant and examiner

#### PhD committees

- Mathieu Nancel (Paris-Sud Univ., December 2012): G. Casiez, examiner
- Khaled Aslan Almoubayed (Nantes Univ., November 2012): N. Roussel, reviewer
- Christophe Bortolaso (Toulouse Univ., June 2012): N. Roussel, president

### 9.3. Popularization

- Presentation of recent HCI works to about twenty students from ENS Cachan visiting LIFL (December 14th): N. Roussel
- Animation of [FITG 2012](#), the third Forum on tactile and gestural interaction, and its round table on the place of HCI in Inria's strategic plan for 2013-2017 (November 13-14): N. Roussel
- Ten minutes interview for Radio Campus on FITG 2012 and Human-Computer Interaction (October 31st): N. Roussel
- Presentation of recent HCI works to journalists visiting Inria's *Plateau* at EuraTechnologies (September 25th): N. Roussel
- Invited talk as part of the “*Pépites de la Métropole*” series organized by Lille Métropole (June 28th): N. Roussel
- Presentation of recent HCI works to ENSCI visitors on Inria's *Plateau* at EuraTechnologies (June 12th): N. Roussel
- Interview for a regional popular science magazine project (*NordEka !*, May 24th): N. Roussel
- Interview for La Recherche (“*Des tablettes tactiles à sensation*”, dossiers n°49, April 18th): N. Roussel
- Invited talk for a round table on design, innovation and intellectual property organized by students from Lille 2 University's Master of Industrial Property (March 16th): N. Roussel
- Interviews for the third edition of the [Transdigital Cookbook](#) on science, technology, art and business (June 2012): L. Grisoni, N. Roussel
- Animation of [a half-day public conference](#) on the World Wide Web Consortium, new standards and the mobile web at EuraTechnologies (February 14th): N. Roussel
- Co-animation of the second edition of Inria's internal *Science mediation seminar* (January 23rd): N. Roussel
- Organization of a three-days visit of LIFL and Inria Lille for about 30 students from ENS Cachan Bretagne and Rennes University's Master of Computer Science & talk on Human-Computer Interaction (January 4-6): N. Roussel
- Interview on Radio campus, 25 january 2012, about equipex IrDIVE: L. Grisoni (30 minutes)
- Interview for Le Monde Science & techno, cahier n°21049, september 22th, article "Interagir à distance avec un écran": L. Grisoni
- Interview for L'Usine Nouvelle, article on technologies for gestural interaction, november 2012: L. Grisoni
- Invited talk for a round table on Innovation and digital contents, organized by town counsil of Lens urban area, november 30th (regional [innovation week](#)): L. Grisoni, representing Inria institute

## POTIOC Team

# 8. Dissemination

## 8.1. Scientific Animation

### 8.1.1. Reviewing

Potioc team members have been involved in the review of numerous submissions in conferences and journals. They include:

- **Conferences:** Sound and Music Computing Conference 2012 (F. Berthaut), CHI 2013 (J. Laviole, F. Lotte, J. Jankowski, A. Cohé), 3DUI 2013 (J. Laviole, F. Lotte, J. Jankowski), JVRC 2012 (A. Cohé), VRST 2012 (F. Larue), BBCI workshop 2012 (F. Lotte), ECAI 2012 (F. Lotte), ICMI 2012 (F. Lotte), ICMI Grand Challenge on BCI 2012 (F. Lotte), PRNI 2012 (F. Lotte), NordiCHI 2012 (F. Lotte)
- **Journals:** Computer and graphics (M. Hachet), AJSE (M. Hachet), Biomedical Engineering Online (F. Lotte), Eurasip Journal on Advances in Signal Processing (F. Lotte), Frontiers in Neuroprosthetics (F. Lotte), IEEE Transactions on Biomedical Engineering (F. Lotte), IEEE Transactions on Computational Intelligence and Artificial Intelligence in Games (F. Lotte), IEEE Transactions on Neural Systems and Rehabilitation Engineering (F. Lotte), IEEE Transactions on Systems, Man and Cybernetics, Part A (F. Lotte), International Journal of Neural Systems (F. Lotte), Journal of Neural Engineering (F. Lotte), Journal of Neurosciences Methods (F. Lotte)

### 8.1.2. Program Committees Members

- IEEE VR 2013 (M. Hachet)
- European Conference on Artificial Intelligence 2012 (ECAI 2012) (F. Lotte)
- International Conference on Multimodal Interaction 2012 (ICMI 2012 – Area Chair) (F. Lotte)
- Grand challenge on BCI at ICMI 2012 (F. Lotte)
- International Workshop on Pattern Recognition in NeuroImaging 2012 (PRNI 2012) (F. Lotte)

### 8.1.3. Other

- Guest Editor for IEEE Transactions on Computational Intelligence and Artificial Intelligence in Games, together with D. Coyle, J. Principe and A. Nijholt, for the special issue “Brain/Neuronal-Computer Games Interfaces and Interaction”, 2012 (F. Lotte)
- Organiser of a workshop on NeuroDesign with Architect Pierre Cutellic at the Advance in Architectural Geometry (AAG 2012) international conference (F. Lotte)

## 8.2. Teaching - Supervision - Juries

### 8.2.1. Teaching

Teaching at ENSEIRB engineering school:

Master: Martin Hachet, Virtual Reality, 15h, 3rd Year, ENSEIRB, France

Master: Florent Berthaut, Virtual Reality, 9h eqTD, M2, ENSEIRB, France

Master: Florent Berthaut, Music Interaction, 8h eqTD, M2, ENSEIRB, France

Master: Florent Berthaut, Human Computer Interaction, 8h eqTD, M1, ENSEIRB, France

Master: Florent Berthaut Jérémie Laviole, 3D Music Instrument Project, 20h eqTD, M2, ENSEIRB, France

**Teaching at University of Bordeaux 1:**

Licence: Jérémie Laviole, Introduction to Computer Science, 25h Course + 17.3h practical work. L1, University of Bordeaux 1, France

Licence: Florent Berthaut, Initiation to Computer Science, 30h eqTD, L1, University of Bordeaux 1, France

Licence: Florent Berthaut, UNIX, 16h eqTD, L3, University of Bordeaux 1, France

Licence: Jérémie Frey, Réseau et projet de programmation 2, 30h eqTD, L3, University of Bordeaux 1, France

Licence: Jérémie Frey, C2i - certificat informatique et internet, 14h eqTD, L1, University of Bordeaux 1, France

Master: Jérémie Laviole, Research Project, 10h. M2, University of Bordeaux 1, France

Master: Florent Berthaut Jérémie Laviole, Virtual Reality, 24h eqTD, M2, University of Bordeaux 1, France

Master: Florent Berthaut, Object Oriented Programming, 30h eqTD, M1, University of Bordeaux 1, France

Master: Florent Berthaut, C++, 16h eqTD, M2, University of Bordeaux 1, France

Master: Florent Berthaut, Project Management, 30h eqTD, M1, University of Bordeaux 1, France

**Teaching at University of Bordeaux 2:**

Master: Martin Hachet, Fabien Lotte, Virtual Reality and 3D Interaction, 8h each, Master 2 Cognitive Sciences, University of Bordeaux 2, France

Master: Florian Larrue, Réalité Virtuelle, Interfaces et Navigation, 5h, Master Recherche Sciences Cognitives, University of Bordeaux 2, France

**Various other teaching activities:**

Ecole de Podologie: Florian Larrue, Introduction à la sécurité et à l’Informatique, 18h, Ecole de Podologie Bordeaux, France.

Ecole de Podologie: Florian Larrue, Formation Word, Excel, Powerpoint, 30h, Ecole de Podologie Bordeaux, France

Master: Fabien Lotte, Virtual Reality and Brain-Computer Interfaces, 6h eqTD, 2nd and 3rd year, ENSSAT Lannion, France

Architecture School (all years): Fabien Lotte, Brain-Computer Interfaces and Neurodesign, 16h, ENSAPM Paris, France

Master/Doctorat: Fabien Lotte, Spatial filtering techniques for practical Brain-Computer Interfaces, 2h, Berlin BCI neurotechnology summer school, Berlin, Germany

### **8.2.2. Supervision**

PhD: Aurélie Cohé, “Manipulating 3D content on Touch Screens”, Université de Bordeaux, defended December 13th 2012, supervised by Martin Hachet and Pascal Guitton

PhD in progress: Jérémie Frey, “Using Passive Brain-Computer Interfaces to assess and design 3D User Interfaces”, Université de Bordeaux, started October 1st 2012, supervised by Fabien Lotte and Martin Hachet

PhD in progress: Jérémie Laviole, “Projection Mapping for Physical Drawing”, Université de Bordeaux, started October 1st 2010, supervised by Martin Hachet

PhD in progress: Renaud Gervais, “Desktop-based stereoscopy”, Inria - Université de Bordeaux, started October 1st 2012, supervised by Martin Hachet

### **8.2.3. Juries**

**PhD juries:**

- Laurent George, Insa de Rennes, December 8, 2012 (M. Hachet - examinateur)
- Francisco Javier Velasco Alvarez, Malaga University, Spain, November 23, 2012 (F. Lotte)

### **8.3. Popularization**

- Creatives Tuesday, Bordeaux, 27th November, "New 3D User Interfaces for the city" (M. Hachet)
- Les signaux du numériques, Talence, 5th March, Demo PapART (M. Hachet, P. Davignon)
- Participation to the exhibition "Lascaux" in Cap Sciences (PapART, Toucheo), (M. Hachet, J. Laviole)
- Participation to the Aquitec student job fair, doing demonstrations and talking about jobs in computer science research (P. Davignon, J. Laviole)
- Interview for the journal “Sciences et Vie Junior”, about Brain-Computer Interfaces (F. Lotte)
- Talk given at the science festival in Goteborg, Sweden, entitled “Playing with the brain: Using ‘Brain-Computer Interface’ to control video games with mental activity” (F. Lotte)
- Interview for a TPE for high schools student about “Touch-based interactive technologies” (J. Frey)
- Care of an high school student (classe de seconde) visiting the Potioc group for a week
- Care of a junior high school student (classe de troisième) visiting the Potioc group for a week

**REVES Project-Team**

## **8. Dissemination**

### **8.1. Scientific Animation**

#### **8.1.1. Program Committees**

G. Drettakis served on the ACM SIGGRAPH program committee. G. Drettakis and A. Bousseau served on the Eurographics Symposium on Rendering program committee. A. Bousseau served on the NPAR program committee.

#### **8.1.2. Community service**

G. Drettakis chairs the Eurographics (EG) Awards Committee and the EG Working group on Rendering and is part of the EG conference steering committee and the Advisory Board for Eurographics 2013. He is an associate editor-in-chief for IEEE Transactions on Computer Graphics and Visualization. G. Drettakis heads the steering committee of the Gouraud-Phong Immersive Space at Sophia-Antipolis.

#### **8.1.3. Conference Presentations and Attendance**

At SIGGRAPH 2012 in Los Angeles, G. Drettakis presented the paper [15] together with Bruno Galerne, A. Bousseau presented the paper [20] (August), and P-Y. Laffont presented a poster and a short talk on his work [22]. G. Chaurasia also attended the SIGGRAPH conference.

P-Y. Laffont presented his paper [19] at SIGGRAPH Asia 2012 in Singapore (December).

G. Drettakis attended EUROGRAPHICS 2012.

C. Verron presented the paper [23] at the AES Convention in San Francisco.

J. Lopez-Moreno, A. Bousseau and S. Duchêne attended the Eurographics Symposium on Rendering in Paris.

G. Chaurasia attended the *Human Activity and Vision Summer School* organized by Inria Sophia Antipolis from Oct 1-5, 2012.

## **8.2. Teaching - Supervision - Juries**

### **8.2.1. Teaching**

Licence: E. Chapoulie teaches in the L1 module on Analogical electronics (32h), at University Nice Sophia Antipolis EPU. P-Y. Laffont taught “Introduction to Object-Oriented Programming” (64h, L3), in the Computer Science and MUNDUS departments at Polytech’Nice.

Masters: G. Drettakis organizes and teaches Computer Graphics at the ECP (Paris) (9h), A. Bousseau teaches 3h at the same course. G. Drettakis teaches 6h in the MAPI M1 Module (Jeux Video), A. Bousseau teaches 3h in this program. A. Bousseau organizes and teaches the Computer Graphics module in the Master 1 International in Computer Science of University Nice Sophia Antipolis (10h), G. Drettakis teaches 8h in this program.

### **8.2.2. Supervision**

PhD : Pierre-Yves Laffont, Intrinsic Image Decomposition from Multiple Photographs [11], Université Nice Sophia Antipolis, defended in October 12th 2012, Advisor: George Drettakis, Co-advisor: Adrien Bousseau

PhD in progress : Emmanuelle Chapoulie, titre (provisoire) du mémoire, since October 2010, Advisor: George Drettakis

PhD in progress : Gaurav Chaurasia, titre (provisoire) du mémoire, since October 2010, Advisor: George Drettakis

PhD in progress : Sylvain Duchêne, titre (provisoire) du mémoire, since October 2011, Advisor: George Drettakis

PhD in progress : Emmanuel Iarussi, Computer-Assisted Drawing, since October 2012, Advisor: George Drettakis, Co-advisor: Adrien Bousseau

Internship : Laurent Lefebvre (EPITECH), Interactive Global Illumination, June-August 2012, Advisor: George Drettakis

Internship : Loic Sevecque (UNSA, MAPI), Modeling and Animation, June-August 2012, Advisor: George Drettakis

#### *8.2.2.1. Thesis Committees*

A. Bousseau was an examinateur for the PhD committee of Jiazhou Chen (MANAO project team, Inria Bordeaux - Sud Ouest). G. Drettakis was rapporteur for the HDR committee of I. Ihrke (MANAO project team, Inria Bordeaux - Sud Ouest), and on the PhD committee of Anthony Pajot (IRIT-CNRS/Université Paul Sabatier Toulouse).

### **8.3. Popularization**

#### **8.3.1. Invited Talks**

A. Bousseau gave an invited talk at Adobe and at the “Cafés de l’Innovation du Centre d’Accueil d’Entreprises Innovantes (CAEI)” in Nice. He also gave a talk at the InSitu project team, Inria Saclay - Ile de France.

Pierre-Yves Laffont was invited to present his PhD work at University of Washington (USA), Paris ACM Siggraph (France) and KAIST (South Korea).

#### **8.3.2. Demonstrations**

**Participants:** Emmanuelle Chapoulie, Rachid Guerchouche, George Drettakis, Adrien Bousseau.

We performed many demonstrations this year, mostly in the Immersive Space but also of our various research results. Specifically, we performed demos to the companies Toyota, Novartis, to representatives of the Pole de Competitive Pegase, Chambre de Commerce et d’Industrie Nice Cote D’Azur, ERCIM and NII Tokyo. We also presented internal demonstrations to C. Kirchner and A. Petit of the Inria national management.

## VR4I Team

# 8. Dissemination

## 8.1. Scientific Community Animation

- B. Arnaldi: **Vice-Director** of IRISA (UMR 6074), **Vice-President** of Scientific Committee of INSA, **Member** of the Selection Committee (CSV) of the Competitiveness Cluster "Media and Networks" (<http://www.images-et-reseaux.com/>) since 2005, **Member** of the Management Committee of "Métivier action of Rennes 1 University Foundation", **Vice-President** of AFRV, **Responsible** of the organization of scientific presentation during the annual days of the association AFRV, **Chair** of the white ANR SIMI2 committee.
- G. Dumont: **Head** of Mechatronics department at École Normale Supérieure de Cachan, **Head** of Media and Interaction department of IRISA (UMR 6074), **Leader** of WP9 of VISIONAIR european project [2011-2014], member of its Directory Board and member of its scientific committee, **Member** of the Selection Committee (CSV) of the Competitiveness Cluster "Media and Networks" (<http://www.images-et-reseaux.com/>), **Member** of Executive Board of international Journal IJIDeM. **Reviewer** for ASME-ISFA2012, ASME-DETC2012, Haptic Symposium 2012, **Member** of the AFRV, **Reviewer** for three PhD Defense (two in Politecnico di Milano, one in École Centrale de Nantes).
- T. Duval: **Member** of AFRV, ACM and Eurographics, **Reviewer** for JVRC 2012, CGI 2012, ICPR 2012, VRST 2012, GRAPP 2013, IEEE VR 2013, 3DUI 2013, **Member** of the International Program Committee of JVRC 2012, GRAPP 2013, 3DUI 2013, **Treasurer** of Web3D 2012, **Program Chair** of a Symposium of the VRIC 2013 conference about immersive collaboration in VR.
- V. Gouranton: **member** of AFRV, co-leader of ANR CORVETTE and FUI SIFORAS.
- A. Lécuyer: **Associate editor** of ACM Transactions on Applied Perception, **Associate editor** of International Journal on Human-Computer Studies, **Secretary** of the French Association for Virtual Reality, **Member of Selection Committee of ANR CONTINT Call for Project**, **Organizer of Panel** at IEEE Virtual Reality 2012 "Brain-Computer Interfaces and Virtual Reality: Present, Past and Future Interactions" (Panelists: A. Nijholt, R. Scherer, M. Gonzalez, C. Berka), **Program Co-Chair** of IEEE Symposium on 3D User Interfaces 2012 , **Program Committee member** of international conferences in 2012 : IEEE VR, IEEE 3DUI, EUROGRAPHICS, EUROHAPTICS, ACM SIGGRAPH ASIA, JVRC, **Reviewer** of journals in 2012 : IJHCS, ACM TAP **Reviewer of conferences** in 2012 : ACM VRST, ACM UIST, **PhD Jury member** in 2012 : J. Fruitet, R. Grandchamp, S. Rousseau.
- M. Marchal: **Reviewer** of international journals in 2012: IEEE TVCG, IEEE TOH **Reviewer** of international conferences in 2012: MICCAI, IEEE EMBS, IEEE Virtual Reality, IEEE 3DUI, ACM VRST, ACM UIST, GRAPP, ACM ICMI, ICCAV, **Reviewer** for ANR, IHU Strasbourg, **Member** of AFRV and AFIG, **Program Committee member** of international conferences: IEEE 3DUI 2013, GRAPP 2013.

## 8.2. Teaching

- Bruno Arnaldi
  - Master MR2I Computer sciences : Virtual and Augmented Reality (VAR) (with E. Marchand), level M2), Rennes 1 University and INSA of Rennes, France
  - Master MR2I Computer sciences : Responsible for the Track Images and Interactions, level M2), Rennes 1 University and INSA of Rennes, France
- Georges Dumont

First year of mechatronics : Design project, 24h, École Normale Supérieure de Cachan, France

Master2, mechatronics : Mechanical simulation in Virtual reality, 36h, level M2, Rennes 1 University and École Normale Supérieure de Cachan, France

Master2, formation des enseignants du supérieur : Mechanics of deformable systems, 40h, level M2, école Normale Supérieure de Cachan, France

Master2, formation des enseignants du supérieur : oral preparation to aggregation competitive exam, 20h, level M2, école Normale Supérieure de Cachan, France

Master2, formation des enseignants du supérieur : Vibrations in Mechanics, 10h, level M2, école Normale Supérieure de Cachan, France

Master2, formation des enseignants du supérieur : Multibody Dynamics, 9h, level M2, école Normale Supérieure de Cachan, France

Master2, formation des enseignants du supérieur : Finite Element method, 12h, level M2, école Normale Supérieure de Cachan, France

Master2 mechatronics : Responsible of the second year of the master, Rennes 1 University and école Normale Supérieure de Cachan, France

- Thierry Duval

Master : Human-Computer Interaction and Design of Interactive Applications, 32h, M2 (GL, Mitic, Miage), University of Rennes 1, France

Master : Collaborative Virtual Environments, 32h, M2 (GL, Mitic), University of Rennes 1, France

Master : Introduction to Computer Graphics, 20h, M1, University of Rennes 1, France

Master : Introduction to 2D and 3D Human-Computer Interaction, 48h, M1, University of Rennes 1, France

- Ronan Gaugne

Master : Virtual Reality presentation, 12h, M1, INSA of Rennes, FR.

Master : Projects on Virtual Reality, 20h, M1, INSA of Rennes, FR.

Master : Projects on Virtual Reality, 16h, M2, INSA of Rennes, FR.

- Valérie Gouranton

Licence : Introduction to Virtual Reality, 13h, L2, INSA of Rennes, FR and responsible of this lecture.

Licence : Project on Virtual Reality, 16h, L3, INSA of Rennes, FR and responsible of this lecture.

Master : Virtual Reality, 8h, M2, INSA of Rennes, FR.

Master : Projects on Virtual Reality, 20h, M1, INSA of Rennes, FR.

Master **co-responsible** of M2 Computer Science of RENNES 1 University, INSA Rennes, ENS CACHAN Antenne Bretagne, Supelec, UBO, ENIB, ENSTA Bretagne, Télécom Bretagne, UBS.

- Anatole Lécuyer

Master IVI : Haptic Interaction, 7 hours, M2, ENSAM, France

MAster SIBM : Brain-Computer Interfaces and Haptic Interfaces, 3 hours, M2, University of Rennes 1, France

- Maud Marchal

Licence : Programming Language C, 30h, L3, INSA Rennes, France;

Master : Algorithms and complexity, 30h, M1, INSA Rennes, France; Object-Oriented Modeling and Programming, 43h, M1, INSA Rennes, France; Software Quality, 30h, M2, INSA Rennes, France; Modeling and Engineering in Biology and Health Applications, 48h, M2, INSA Rennes, France; Medical Simulation, 3h, M2, Master SIBM University of Rennes 1, France;

- Quentin Avril
  - Licence : Sensibilisation Réalité Virtuelle, 20h eq. TD, L1, INSA de Rennes, France
  - Master : Images Numériques, 28h eq. TD, M1, Université de Rennes1, France
  - Master : Modélisation, Animation et Rendu 3D, 11h eq. TD, M2, Université de Rennes1, France
- Charles Pontonnier
  - Master : Conception de systèmes mécatroniques, 20h, M1 Mécatronique, Antenne de Bretagne de l'ENS Cachan, France
  - Master : Mécanique des milieux continus, 24h, M2 Formation à l'Enseignement Supérieur, Antenne de Bretagne de l'ENS Cachan, France
  - Master : Résistance des matériaux, 24h, M2 Formation à l'Enseignement Supérieur, Antenne de Bretagne de l'ENS Cachan, France
  - Master : Travaux pratiques d'automatique, 24h, M2 Formation à l'Enseignement Supérieur, Antenne de Bretagne de l'ENS Cachan, France
  - Master : Travaux pratiques d'analyse de systèmes mécaniques, 15h, M2 Formation à l'Enseignement Supérieur, Antenne de Bretagne de l'ENS Cachan, France

### 8.3. PhD

HDR : Thierry Duval, Models for design, implementation and deployment of 3D Collaborative Virtual Environments, defense date 2012/11/28.

PhD : Cédric Fleury, Outils pour l'exploration collaborative d'environnements virtuels 3D, INSA Rennes, defense 2012/06/15, advised by Bruno Arnaldi, co-advised by Thierry Duval and Valérie Gouranton [2].

PhD : Rozenn Bouville Berthelot, Interopérabilité des environnements virtuels 3D : modèle de réconciliation des contenus et des composants logiciels , start date 2009/11/01, advised by Bruno Arnaldi, co-advised by Thierry Duval and Jérôme Royan, defense date 2012/12/20.

PhD in progress : Thi Thuong Huyen Nguyen, Proposition de nouvelles techniques d'interaction 3D et de navigation 3D préservant l'immersion de l'utilisateur et facilitant la collaboration entre utilisateurs distants, start date 2011/10/01, advised by Thierry Duval.

PhD in progress : Jérôme Ardouin, See and Interact at 360 degree, start date 2011/01/14, advised by Anatole Lécuyer.

PhD in progress : Fabien Danieau, Haptic interaction for multimedia, start date 2011/01/03, advised by Anatole Lécuyer.

PhD in progress: Laurent George, The use of Brain computer interface for implicit human-computer interaction with Virtual Environnement, start date 2009/11/01, advised by Anatole Lécuyer.

PhD : Loeiz Glondu, Modélisation et simulation physique d'outils d'exploration pour des interactions en environnement virtuel, start date 2009/10/01, advised by Georges Dumont, co-advised by Maud Marchal, defense date 2012/11/06 [3].

PhD in progress : Andrés Saraos Luna, Travail d'équipe entre individus réels ou virtuels pour réaliser un travail collaboratif adaptatif dans un environnement virtuel possiblement physicalisé, start date 2010/10/01, advised by Bruno Arnaldi, co-advised by Valérie Gouranton.

PhD in progress : Anthony Talvas, Two-handed haptic perception and interaction with virtual worlds, start date 2011/10/01, advised by Anatole Lécuyer, co-advised by Maud Marchal.

PhD : Léo Terzman, Realistic walking navigation in virtual environments for training, start date 2009/10/01, advised by Anatole Lécuyer and Bruno Arnaldi. [4]

## AXIS Project-Team

# 7. Dissemination

## 7.1. Animation of the Scientific Community

### 7.1.1. General Audience

- **B. Senach' talk at WUD 2012 [68]:** "Experience is a back hooked lantern that shed light on the travelled path". Current and future research topics are better understood when envisioned within the global framework of societal demands and in relation with historical evolution. For the 2012 World Usability Day event, an overview of the last 40 years research topics in SHS-STIC has been proposed. This presentation showed first how current scientific studies of user experience are linked to a paradigm shift in the 90's concerning the initially too simplistic relationship between SHS and STIC. From this conceptual crisis emerged in each field (SHS and STIC) specific research tracks and an enlarged model of Human behavior including, among others, social relationships, shared activities, emotions, etc. As expertise in user interface design and evaluation improved in relation with technical development, new societal challenge araised with new methodological requirements.  
First the European community turn towards knowledge economy put stress on open innovation and living lab methodology as a way to accelerate new products and services adoption. Ethno methodology nowadays is more and more used and the field of Service Design has emerged as a domain integrating most of tools and methods previously used for user interface and user experience design.  
In addition, the European Community orientation towards sustainable development brought other requirements concerning deep change of the way of living in occidental society. As it is necessary to adopt eco behavior for resources consumption, mobility and others daily activities, the focus is now on levers helping people to change their behavior. Persuasive interface are a promising research aera. The B. Senach'video presentation at WUD2012 is also available on line on dailymotion.
- **TIC TAC:** co-organisation of the final event (may, large audience) related to the PREDIT Tic Tac at ADEME (Sophia Antipolis) in order to report the results of the project and announce the five citizen, winners of the experiment. Around 40 people participated to this event.
- **ECOFAMILIES:** co-organisation of the final event (large audience) at CSTB (Sophia Antipolis) related to the PACALABS ECOFAMILIES project (cf. section 6.1.4 and the final report [61]). A documentary film has been produced during the project by Natacha Cyrulnik (I3M) and the « Compagnie des Embruns »: this movie offers a testimonial of the participatory design process and shows the families implication all along the project. This project was also the subject of 19-20 journal at France 3 on October 17th. An article on the ECOFAMILIES project - how to promote energy-aware behaviors at home was published on BuildUP and is shared in various social networks (linkedIn, twitter, facebook).An executive summary of the project (english version) was put on the ICT Usage Lab Web site.
- **ECOFFICES:**
  - B. Trousse gave a talk on *Ecoffices: the usages aspect* (April 19th, Brignoles) in the context of the working group Smart grid in PACA (common to two clusters, SCS and Cap Energies clusters).
  - Co-redaction of a flyer (english version) related to the PACALABS ECOFFICES project for the experts of IGSAN during the conferences in Nice distributed by "Chambre de Commerce et industrie" (Enterprise/Environment/Energy Department) ISGAN - CCI.

### 7.1.2. Editorial Boards and Reviewing

Axis members participate in the **editorial boards** of various journals:

**Brigitte Trousse**

- Journal of Symbolic Data Analysis
- IJDST - International Journal of Design Sciences & Technology)
- Co-Design Journal

**Yves Lechevallier**

- MODULAD (electronic journal), <http://www.modulad.fr/> as co-editor
- Journal of Symbolic Data Analysis

**Dominique Scapin**

- BIT (Behaviour & Information Technology) as Associate Editor
- UAIS -International Journal of Universal Access in the Information Society)
- IJHCS - International Journal of Human-Computer Studies
- IWC - Interacting with Computers
- IJPOP - International Journal of People-Oriented Programming
- International Journal On Advances in Intelligent Systems
- JMUI - Journal of Multimodal User Interfaces
- JIPS - Journal d'Interaction Personne-Système

AxIS members are very regularly **reviewers** for various major journals: ADAC "Advances in Data Analysis and Classification", BIT, ADAC "Advances in Data Analysis and Classification", IJHCS (International Journal of Human-Computer Studies), JMUI (Journal of Multimodal User Interfaces), Le Travail Humain, UAIS, IwC in 2012.

Thierry Despeyroux was reviewer for a book: Advances in Knowledge Discovery and Management Vol. 4 to be published.

D.L. Scapin participated to the content setting and wrote a "Foreword" for the compilation of ergonomic standards by AFNOR: Ergonomie des Logiciels. Recueil de Normes Ergonomie des postes et lieux de travail, AFNOR November 2012.

### **7.1.3. Conferences/Workshops Scientific Program Committees**

Y. Lechevallier and B. Trousse are members of the **supervising committee** of the association EGC (<http://www.egc.asso.fr/>)

Yves Lechevallier was scientific chair of EGC 2012 [39], Bordeaux, France, January 31 - February 3, 2012

AxIS permanent members are involved in the following program committees of conferences and workshops:

**Brigitte Trousse**

- CSCWD 2012, the 2012 16th IEEE International Conference on Computer Supported Cooperative Work in Design, Wuhan, China , 23-25 may, (sponsored by IEEE SMC Society)
- EGC 2012, Bordeaux, France, January 31 - February 3, 2012
- RàPC 2012, 20th French Workshop on Case-based Reasoning, 25 june, Paris.

**Yves Lechevallier**

- EGC 2012, Bordeaux, France, January 31 - February 3, 2012

**Dominique Scapin**

- ACHI 2012, Valencia, Spain, January 30 - February 4, 2012
- ICMI 2012, Santa Monica, California. Oct. 22-26th, 2012
- Workshop "Supportive User Interfaces", Copenhagen, Denmark - June 25, 2012, in conjunction with the EICS 2012 conference
- CENTRIC 2012, Lisbon, Portugal, November 18-23, 2012
- SETIT 2012, Sousse, Tunisia, March 21-24, 2012
- ErgoIHM 2012, Biarritz, France, October 17-19,2012

### 7.1.4. Organization of Workshops and Conferences

- **Yves Lechevallier** was scientific chair of EGC 2012, Bordeaux, France, January 31 - February 3 [39].
- **B. Trousse** (as Inria and ICT Usage Lab representative) participated in the *ICC* 2012 program committee in charge of the invited talks. Our two proposed speakers were selected for the final program (June 7th): Michael Nilsson coordinator of the FIREBALL project (CDT, Luleå University of Technology) and Khaldoun El Agha (University Paris 8 and ICT labs).

### 7.1.5. Participation in PhD Thesis Committees

AxIS researchers were members of the following Ph.D. committees in 2012:

- **Julie Seguela**, Ph.D.: Fouille de données textuelles et systèmes de recommandation appliqués aux offres d'emploi diffusées sur le web. CNAM, école doctorale EDITE, May 3, 2012: Y. Lechevallier (Examinateur).
- **Jean-Baptiste Masson**, Ph.D.: SIGFRIED 2 : Modèles de mélange censurés et autres méthodes statistiques pour la construction d'indicateurs spatialisables de la qualité de l'air intérieur dans les logements français. Université de Technologie de Compiègne, May 30, 2012: Y. Lechevallier (Rapporteur).
- **Annette Casagrande**, Ph.D.: Proposition d'une mesure de voisinage entre textes: Application à la veille stratégique. Université de Grenoble, école doctorale MSTII, July 3, 2012: Y. Lechevallier (Examinateur).
- **Thomas Villaren**, Ph.D.: « Modèles et mécanismes d'adaptation d'Interaction Homme-Machine aux changements de contexte », Université de Bretagne, Département : Logique des Usages, Sciences Sociales et de l'Information (LUSSI), spécialité « STIC », November 30, 2012: D. L. Scapin (Rapporteur).
- **Jacques-Henri Sublemontier**, Ph.D.: Classification non supervisée : de la multiplicité des données à la multiplicité des analyses. Université d'Orléans, December 7, 2012: Y. Lechevallier (Rapporteur).
- **Djamal Adboul Nasser Seck**, Ph.D.: Arbres de décision symboliques, outils de validation et d'aide à l'interprétation. Université Paris-IX Dauphine, December 20, 2012: Y. Lechevallier (Rapporteur).

## 7.2. Teaching and Supervision

### 7.2.1. Teaching Activities

Y. Lechevallier

Master 2 Recherche *Systèmes intelligents* (resp: S. Pinson), University at Paris IX-Dauphine, France. Course on "Du data mining au knowledge mining" (12h).

Master 2 Pro *Ingénierie de la Statistique* (resp: G. Saporta) at CNAM (Conservatoire national des arts et métiers), France. Course on "Méthodes neuronales" (12h).

*Ecole Nationale des Sciences Géographiques* (ENSG): Course on Clustering (12h).

### 7.2.2. PhD Thesis Supervision

AxIS is an associated team of the STIC Doctoral school of Nice-Sophia Antipolis University (UNS). Our PhD students come from the University of Paris Dauphine, the University of Nice Sophia Antipolis, the Université Catholique de Louvain, the University of Recife (Brazil) and from various Universities of Morocco and of Tunisia.

B. Trousse is involved in the supervision committee of E.L. Moukhtar Zemmouri, PhD student in Morocco.

## DAHU Project-Team

# 7. Dissemination

## 7.1. Scientific Animation

Organization of workshops and conferences.

- Luc Segoufin organized an international workshop on finite model theory in Les Houches in May 14-18, 2012: <http://www.lsv.ens-cachan.fr/Events/fmt2012/>.
- Serge Abiteboul co-organized with Tova Milo (Tel Aviv) the WebDam-MoDaS Workshop on Web data management and Crowdsourcing, Eilat, Israel 2012
- Serge Abiteboul co-organized with P. Senellart (Telecom Paris) the Webdam “Data in the Wild” Workshop, Paris 2012

Program Committees.

- Serge Abiteboul: International Conference on Database Theory (ICDT'12)
- Serge Abiteboul: World Wide Web (WWW'2012)
- Luc Segoufin: Principle of Database systems (PODS'12).
- Cristina Sirangelo: International Conference on Database Theory (ICDT'13)
- Cristina Sirangelo: ICDT'13 Test of Time Award
- Cristina Sirangelo: 6th Alberto Mendelzon Workshop

Responsibilities.

- Luc Segoufin is since 2009 the coordinator of the european project FoX. Since 2010 he is a member of the steering committee of the Intl. Conf. on Database Theory (ICDT). Since 2010 he is part of the “bureau du comité des projets” à l’Inria Saclay. Since 2011 he is part of the scientific board of Inria. Since 2010 he is responsible of the groupe de travail “Complexité et Modèles Finis” du GDR “Mathématique et Informatique” (<http://www.gdr-im.fr/>).
- Serge Abiteboul is the principal investigator of the European Research Council Grant Webdam on Web Data Management. He is a member of the French Academy of Sciences and of the Academia Europea. He is chairman of the Scientific Council of Société d’Informatique de France, elected in 2012.

Larger audience. School "Imagine the Future in ICT", organized by ICDT lab. Two courses given by  
Serge Abiteboul: (i) Data sciences; (ii) Web search engines.

Nomination. Serge Abiteboul has been professor at College de France [21] till September 2012. He organized a 10 hours course on Web data management. He also organized a seminar on the topic with for guests: Moshe Vardi, Anastasia Ailamaki, François Bancilhon, Julien Masanès, Victor Vianu, Tova Milo, Georg Gottlob, Gerhard Weikum, Marie-Christine Rousset, Pierre Senellart.

## 7.2. Teaching - Supervision - Juries

### 7.2.1. Teaching

Le module "Teaching" présente vos activités d'enseignement et d'encadrement à présenter comme suit :

Licence : Cristina Sirangelo, Bases de données, 30 heures équivalent TD, L3, École Normale Supérieure de Cachan, France

Doctorat : Cristina Sirangelo, Bases de données et sites Web dynamiques, 18 heures équivalent TD, École Normale Supérieure de Cachan, France

Doctorat : Cristina Sirangelo, Création de sites Web, 18 heures équivalent TD, École Normale Supérieure de Cachan, France

Licence : Serge Abiteboul, Base de données , ENS Cachan and ENS Paris

Master : Serge Abiteboul, Web data management, MPRI Paris

Licence : Émilien Antoine, Algorithmique et complexité, 32h, L3, Université de Paris-Sud, France

### **7.2.2. Supervision**

PhD & HdR :

PhD in Progress: Wojciech Kazana, enumeration of queries, 01/03/2010, Luc Segoufin

PhD in Progress: Nadime Francis, graph databases, 01/09/2011, Cristina Sirangelo and Luc Segoufin

PhD in progress : Émilien Antoine, Data management in social network, 01/10/2010, Serge Abiteboul

### **7.2.3. Juries**

- Luc Segoufin was on the HDR jury of Florent Madeleine at the university of Clermont-Ferrand.
- Luc Segoufin was on the HDR jury of Manuel Bordiski at the university of Paris 7.
- Cristina Sirangelo was on the jury for a MCF position at Ecole Normale Supérieure de Cachan

## **7.3. Popularization**

S.Abiteboul's radio talk shows: Science Publique (France Culture), Place de La Toile (France Culture), Autour de la question (RFI)

S.Abiteboul's interviews in the press:

- Construisons un Web des savoirs, Le Monde
- Le Web redéfinit sans cesse les échanges d'information, Le Figaro 2012
- L'enseignement de l'informatique en classes prépas, 01.Net (avec Colin de La Higuera)
- Le Big Data est avant tout un effet de mode, O1Net
- Sur les liens entre labos publics et universitaires, 01.Net 2012.
- L'informatique est une science bien trop sérieuse pour être laissée aux informaticiens, Le monde.fr (avec Colin de la Higuera et Gilles Dowek)
- L'important sur Internet, c'est de trouver la bonne information, Lepoint.fr

## **DREAM Project-Team**

# **8. Dissemination**

## **8.1. Scientific Animation**

### **8.1.1. Journal editorial board**

- *AAI: Applied Artificial Intelligence* (M.-O. Cordier).
- *ARIMA: Revue Africaine de la Recherche en Informatique et en Mathématiques Appliquées* (M.-O. Cordier).
- *Revue I3* (M.-O. Cordier).
- *Revue JESA (Journal Européen des Systèmes automatisés)* (M.-O. Cordier).
- *Interstices webzine* (M.-O. Cordier).
- *Bulletin AFIA* Invited editors of the special issue on "Intelligence Artificial and Agronomy": T. Guyet, M.-O. Cordier

### **8.1.2. Conference program committees and organizations**

- Program committee member of KR'2012, ECAI 2012, RFIA'2012 (M.-O. Cordier)
- Program committee member of RFIA'2012 (T. Guyet).
- Program committee member of ECAI 2012, EGC 2013 (R. Quiniou).
- Program committee members of FOSTA workshop at EGC 2013 (T. Guyet, R. Quiniou).
- Organization committee member of CIDN workshop at EGC 2013 (T. Guyet).
- Organization committee members of EGC 2014 scheduled in Rennes (T. Guyet, R. Quiniou).
- Steering Committee of RFIA'2014 (T. Guyet).

### **8.1.3. Scientific and administrative boards**

- ECCAI fellow + Honorific member of AFIA (Association Française d'Intelligence Artificielle): M.-O. Cordier
- Member of “ Agrocampus-Ouest” scientific board: M.-O. Cordier.
- Member of “Conseil d’administration de l’ISTIC”, “Comité scientifique de l’ISTIC”, “Direction scientifique de l’Irisa”: M.-O. Cordier
- Member of the “AAAI” award committee: M.-O. Cordier.
- Member of the “Prix de thèse AFIA 2012” award committee (selects the best French PhD thesis in the Artificial Intelligence domain): M.-O. Cordier.
- Chair of the INRA CSS-MBIA (Commission scientifique spécialisée “Mathématiques, Biologie et Intelligence Artificielle”): M.-O. Cordier.
- Member of the CoNRS (Comité national recherche scientifique (since october 2012) : M.-O. Cordier
- Member of the AFIA board: T. Guyet.
- Member of the COREGE (Research Committee-COMité de la REcherche du Grand Etablissement) of Agrocampus-Ouest: T. Guyet.
- External evaluator for the portuguese FCT (Portuguese Foundation For Science and Technology): T. Guyet.
- Member of the Payote-Network board: T. Guyet.

### **8.1.4. Misc**

- Expert for specifying “methods and tools for exploring and analyzing simulation results” in the INRA inter-department project "Paysage Virtuel" (Virtual Landscape) (T. Guyet).
- Organization of the “Turing day” in october 2012 (M.-O. Cordier)
- Invited talk at CIDN workshop at EGC 2012 (R. Quiniou).
- Invited talk at Assises du GDR I3, Porquerolles, 2012, May 10 (Y. Moinard).
- Seminar in the Reasoning and Decision theme at IRIT (Toulouse, 2012, june 15) (Y. Moinard).
- Invited lectures at the “Logic Summer School”, Canberra, Australie, december 2012 (M.-O. Cordier)

## **8.2. Teaching - Supervision - Juries**

### **8.2.1. Teaching**

Many members of the EPI DREAM are also faculty members and are actively involved in computer science teaching programs in ISTIC, INSA and Agrocampus-Ouest. Besides these usual teachings DREAM is involved in the following programs:

Master: *Module DSS: Apprentissage sur des données séquentielles symboliques*, 10 h, M2, ISTIC University of Rennes (R. Quiniou).

Master: *Module OCI : Interfaces graphiques en C++/GTKMM*, M2, ISTIC University of Rennes (T. Guyet),

Master: *Géoinformation*, M2, Agrocampus Ouest Rennes (L. Bonneau, T. Guyet, K. Sedki)

### **8.2.2. Supervision**

PhD in progress: Tassadit Bouadi, “Analyse interactive de résultats de simulation et découverte de connaissances. Application à l'aide à la décision dans le domaine agroécologique pour l'amélioration de la qualité des eaux des bassins versants”, january 1st 2010, co-supervisors Marie-Odile Cordier, René Quiniou and Chantal Gascuel, ANR project Acassy grant

PhD in progress: Yulong Zhao, “Modélisation d'agroécosystèmes dans un formalisme de type systèmes à événements discrets et simulation de scénarios utilisant des outils de model-checking. Application à l'étude des impacts des changements climatiques et des pratiques agricoles sur les flux de nutriments vers les eaux de surface.”, october 1st 2010, supervisor Marie-Odile Cordier and Chantal Gascuel

PhD in progress: Philippe Rannou, “Modèle rationnel pour humanoïdes virtuels”, october 1st 2010, co-supervisors Marie-Odile Cordier and Fabrice Lamarche

### **8.2.3. Juries**

- Committee member of Romain Tavenard's PhD defence (Univ. Rennes1): M.-O. Cordier
- Committee member of Nuno Belard's PhD defence (Univ. Toulouse): M.-O. Cordier
- Committee member of Annie Foret's HDR defence (Univ. Rennes1): M.-O. Cordier
- Committee member of Vincent Armant's PhD defence (Univ. Paris11): M.-O. Cordier
- Committee member of Christophe Salperwyck's PhD defence (Université de Lille): R. Quiniou.
- External member of the INRA jury for the recruitment of computer science engineers: T. Guyet

## EXMO Project-Team

# 8. Dissemination

## 8.1. Scientific Animation

- Jérôme Euzenat is founding member of the "Semantic Web Science Association" (steering committee for the ISWC conference series).
- Editorial board of *Journal of Web Semantics*, *Journal on Data Semantics* and *Semantic web journal* (Jérôme Euzenat).
- Jérôme David has been tutorial chair (with Irwin King) of the 21st International Worl Wide Web Conference (WWW).
- Jérôme Euzenat have been co-chairman (with Manfred Hauswirth and Josie Xavier Perreira) of the "Experiment and evaluation" track of the 11th "International Semantic Web Conference" (ISWC, Boston, MA US), 2012
- Jérôme Euzenat has been programme committee member for the 2012 issues of the conferences International Semantic Web Conference (ISWC), Worldwide Web Conference (www), National Conference on Artificial Intelligence (AAAI) International conference on Knowledge Engineering and Knowledge Management (EKAW), Formal Ontologies for Information Systems (FOIS), International Conference on Conceptual Modelling (ER).
- Jérôme David has been programme committee member of the International Conference on Mobile Web Information Systems (MobiWIS) 2012.
- Jérôme David has been programme committee member for the 2012 issues of the Ontology matching workshop (OM), Artificial Intelligence meets the Web of Data workshop (AImWD) and Downscaling the Semantic Web workshop (Downscale).
- Cassia Trojahn has been programme committee member for the 2nd International Workshop on Evaluation of Semantic Technologies (IWEST) and the 7th International Workshop on Ontology Matching (OM).
- Jérôme Euzenat has also been programme committee member for the ESWC international workshop on the "evaluation of semantic technologies (iWEST)", IJCAR workshop on "OWL reasoner evaluation", ECAI workshop on "Cooking with computers", ECAI workshop on "Artificial intelligence meets the web of data", ISWC workshop on "Knowledge evolution and ontology dynamics" (EvoDyn).
- Jérôme Euzenat has organised (with Pavel Shvaiko, Anastasios Kementsietsidis, Ming Mao, Natasha Noy and Heiner Stuckenschmidt) the 7th "Ontology matching" workshop of the 11th ISWC, Boston (MA US), 2012 [22].
- Jose Luis Aguirre, Jérôme Euzenat and Cássia Trojahn dos Santos have organised (with many other colleagues) the Ontology Alignment Evaluation Initiative 2012 at the "Ontology matching" workshop of the 11th ISWC, Berlin (MA US), 2012 [7].
- Cassia Trojahn dos Santos has organised the SEALS meeting welcoming 20 people for four days in Grenoble.
- Jérôme Euzenat has been consulted by the ISO OntoIOP working group (ISO/TC 37/SC 3 "Systems to manage terminology, knowledge and content") on alignment formats (2012).
- Invited conference on "The web of data as an AI playground", ECAI "AI and linked data" workshop, Montpellier (FR), 27/08/2012 (Jérôme Euzenat)
- Invited conference on "Distributed and dynamic knowledge for real", OntoBras conference, Recife (BR), 21/09/2012 (Jérôme Euzenat)

- Seminar on “Linked data from your pocket: The Android RDFContentProvider”, Prague University of Economics, Prague (CZ), 11/12/2012 (Jérôme David)
- Seminar on “Ontology alignment metadata”, Open ontology repository metadata workshop, Conference call, 24/04/2012 (Jérôme Euzenat)
- Seminar on “What you say is what I get; what you don’t say is what I don’t get”, Dagstuhl seminar on «Cognitive approaches to the semantic web», Wadern (DE), 30/05/2012 (Jérôme Euzenat)
- Seminar on “Quelques questions sur les réseaux d’ontologies”, Limos seminar, Clermont-Ferrand (FR), 14/06/2012 (Jérôme Euzenat)

## **8.2. Teaching - Supervision - Juries**

### **8.2.1. Teaching**

Licence: Jérôme David, Outils Informatique (c2i), 18, L1, UPMF, France

Licence: Jérôme David, Développement Mobile, 25, L3, UPMF, France

Licence: Jérôme David, Introduction à Java, 24, L3, UPMF, France

Licence: Jérôme David, Programmation Avancée, 20, L3, UPMF, France

Licence: Jérôme David, Introduction aux bases de données relationnelles, 8, L2, UPMF, France

Master: Jérôme David, Programmation Java 2, 30, M1-M2, UPMF, France

Master: Jérôme David, JavaEE, 30, niveau M2, UPMF, France

Master: Jérôme David, Développement Web Mobile, 30, M2, UPMF, France

Master: Jérôme David, Interface Homme Machine 2, 30, M2, UPMF, France

Master: Jérôme Euzenat, Semantic web: from XML to OWL, 27heqTD, M2R, Université Joseph Fourier & INPG, France

Post-graduate level: Jérôme Euzenat, Ontology matching, 4heqTD, European Summer School on Ontology Engineering and the Semantic Web, Spain

### **8.2.2. Supervision**

PhD: Melisachew Wudage Chekol, Static analysis of semantic web queries [4], Université de Grenoble, 19/12/2012, supervisors: Jérôme Euzenat and Nabil Layaïda

PhD in progress: Zhengjie Fan, Ontology-based data interlinking, 1/1/2011, supervisors: Jérôme Euzenat and François Scharffe

PhD in progress: Tatiana Lesnikova, Multilingual data interlinking, 1/10/2012, supervisors: Jérôme Euzenat and Jérôme David

PhD in progress: Armen Inants, Ontology alignment algebra, 1/12/2012, supervisor: Jérôme Euzenat

### **8.2.3. Juries**

- PhD: David Rouquet, Multilinguisation d’ontologies dans le cadre de la recherche d’information translingue dans les collections d’images accompagnées de textes spontanés, Université de Grenoble, 6/4/2012, Valérie Bellynck and Christian Boitet
- PhD: Nathalie Abadie, Formalisation, acquisition et mise en œuvre de connaissances pour l’intégration virtuelle de bases de données géographiques: les spécifications au cœur du processus d’intégration, Université Paris-Est, 20/11/2012, Anne Ruas and Sébastien Mustière
- PhD: Anna Tordai, On combining alignment techniques, Vrije Universiteit Amsterdam, 2/12/2012, Guus Schreiber and Bob Wieliga
- PhD: Duy Hoa Ngo, Enhancing Ontology Matching Quality By Using Machine Learning, Graph Matching And Information Retrieval Techniques, Université de Montpellier 2, 14/12/2012, Zohra Bellahsène

### **8.3. Popularization**

- Jérôme Euzenat gave a presentation on *Library resources and the web of data: the missing link* at the Millenium club (group of librarians) days, Montbonnot (FR), 28/03/2012.
- Jérôme Euzenat coordinated of the INTech technology watch seminar on *L'ouverture des données: technologies et usages (Open data: technology and use)*, 7 presentations, 12 demonstrations, 80 participants, Montbonnot, 5/6/2012.
- Jérôme Euzenat has been interviewed by Françoise Breton, “l'émergence d'un web des connaissances”, published on the Inria Grenoble Rhône-Alpes web site<sup>1</sup>, 25/09/2012.

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<sup>1</sup><http://www.inria.fr/centre/grenoble/actualites/l-emergence-d-un-web-des-connaissances>

## GRAPHIK Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

### 9.1.1. Organization of Conferences/Workshops

ECAI 2012 (European Conference on Artificial Intelligence), held in August 2012 in Montpellier, gathered more than 750 participants. This major conference in artificial intelligence was locally organized by the LIRMM, mainly by the teams Coconut and GraphIK. <http://www2.lirmm.fr/ecai2012/>

GKR@IJCAI 2013 (International workshop on graph structures for knowledge representation and reasoning) will be held for the third time in conjunction with IJCAI. This workshop was initiated by Madalina Croitoru in 2009. The GKR post proceedings of 2011 were published in a Springer volume [43].

MPREF'13 (Multidisciplinary Workshop on Advances in Preference Handling): will be held in conjunction with IJCAI'13 and will be co-organized by Souhila Kaci. This workshop promotes the broadened scope of preference handling and continues a series of events on preference handling at AAAI-02, Dagstuhl in 2004, IJCAI-05, ECAI-06, VLDB-07, AAAI-08, ADT-09, ECAI-2010 and ECAI-2012. Since 2008, this series of workshops is organized by the multidisciplinary working group on Advances in Preference Handling, which is affiliated to the Association of European Operational Research Societies EURO.

Souhila Kaci will also co-organize the "Uncertain Reasoning" Track at FLAIRS'13.

### 9.1.2. Editorial Boards

ICCS (International Conference on Conceptual Structures)

RIA (Revue Francophone d'Intelligence Artificielle)

### 9.1.3. Program Committees

*International:* IJCAI 2013 (senior PC and PC), KR 2012 (Principles of Knowledge Representation and Reasoning), RR 2012-2013 (Reasoning the Web), ECAI 2012 (European Conference on Artificial Intelligence), Datalog 2.0 2012, SGAI 2012-2013 (SGAI International Conference on Artificial Intelligence), FUZZ-IEEE 2012 (International Conference on Fuzzy Systems), Effost 2012 (European Federation of Food Science and Technology), MPREF'12 (Multidisciplinary Workshop on Advances in Preference Handling, in conjunction with ECAI), WL4AI'12 (Weighted Logics for AI, in conjunction with ECAI), FLAIRS'12 (Florida Artificial Intelligence Research Society), ICAART 2012-2013 (International Conference on Agents and Artificial Intelligence), Web Science 2012-2013

*National:* JIAF 2012 (Journées d'Intelligence Artificielle Fondamentale), RFIA 2012 (Reconnaissance des Formes et Intelligence Artificielle), IC 2012-2013 (Ingénierie des Connaissances), LFA 2012 (rencontres francophones sur la Logique Floue et ses Applications).

### 9.1.4. Invited Talks

#### *Keynote Talks at International Conferences*

- RuleML: Ontology-Based Query Answering with Existential Rules, Marie-Laure Mugnier, Montpellier, August 2012. <http://dbis.informatik.tu-cottbus.de/ruleml2012/>
- Effost 2012: Food science and knowledge engineering: a challenging encounter, Patrice Buche, November 2012. <http://www.effostconference.com/index.html>

#### *Invited Talks at International Workshops*

- Workshop Datalog 2.0: Existential Rules: A Graph-based View, Marie-Laure Mugnier, Vienne, September 2012. <http://www.dbai.tuwien.ac.at/datalog2.0/>
- MPREF'12: What do we prefer? From philosophical stimulus to Artificial Intelligence solutions, Souhila Kaci, Montpellier, August 2012.

### *Invited Seminars*

- Jean-François Baget and Marie-Laure Mugnier. Existential Rules: Decidability and Algorithms, Department of Computer Science, University of Oxford, December 2012.
- Madalina Croitoru and Jérôme Fortin. Graph based Knowledge Representation and Reasoning, Department of Computer Science, University of Aberdeen, January 2012.

### **9.1.5. Scientific Advisory Boards**

- ABES (National Bibliographic Agency for Universities) Scientific Advisory Board, Michel Chein (since its creation in 2010)
- Advisory Board of the Center of Excellence in Semantic Technologies (MIMOS, Malaysia), Marie-Laure Mugnier (since its creation in 2008)
- Scientific board of INRA-CEPIA department (Caractérisation et Elaboration des Produits Issus de l'Agriculture – Agricultural Products Engineering), Marie-Laure Mugnier (since Septembre 2011)

### **9.1.6. Expertise Tasks:**

Experts for ANR, INRA and Inria (project proposal reviewing); reviewers for Artificial Intelligence Journal, JAIR (Journal of Artificial Intelligence Research), IEEE Transactions on Fuzzy Systems, Journal of Visual Languages & Computing, European Journal of Operational Research, ...

### **9.1.7. Local Collective Tasks:**

LIRMM Scientific Council (Jean-François Baget), Vice-chair of “Expert Pool” section 27–Computer Science (Michel Leclerc), member of Expert Pool Section 27 (Marie-laure Mugnier), LIRMM Laboratory Concil (Marie-Laure Mugnier until Oct. 2012, Souhila Kaci from Oct. 2012).

### **9.1.8. Participation to the W3C RDF Working Group**

(Jean-François Baget) The mission of the RDF Working Group, part of the Semantic Web Activity, is to update the 2004 version of the Resource Description Framework (RDF) Recommendation. The scope of work is to extend RDF to include some of the features that the community has identified as both desirable and important for interoperability based on experience with the 2004 version of the standard, but without having a negative effect on existing deployment efforts. <http://www.w3.org/2011/01/rdf-wg-charter>

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

The next table details the number of lecture hours as well as the number of module responsibilities for each team member.

Name	Position	2011/12	Cursus (*)	Module Resp. (per year)
J.-F. Baget	Research Scientist	40	M (UM2)	1
M. Croitoru	Assistant Prof.	96	L (IUT) and M	2
M. Chein	Emeritus Prof.	0		
J. Fortin	Assistant Prof	192	Polytech	2
S. Kaci	Professor	198	L and M(UM2)	3
M. Leclerc	Assistant Prof.	96	L and M (UM2)	1
M. -L. Mugnier	Professor	192	L and M (UM2)	4
R. Thomopoulos	Research Scientist	0		no
L. Guizol	PhD	64	L	no
M. König	PhD	64	L	no
B. Paiva Lima	PhD	64	L (UM2)	no
M. Thomazo	PhD	64	L and M1 (UM2)	no

(\*) L =Licence, M = Master (M1 = first year, M2 = second year), UM2 = Univ. Montpellier 2 (Sciences), IUT = Institute of Technology of UM2 (Licence Cursus), Polytech = Engineering School of UM2, UM3 = Univ. Montpellier 3 (Art and Humanities)

Globally, the team ensures the courses in logics (propositional logic and first-order logic in L, logics for Artificial Intelligence in M2) at the Montpellier 2 University, as well as the Master courses in Artificial Intelligence, Decision Support, Knowledge Representation and Knowledge Engineering. We are also responsible of modules in Web Technologies (Professional L at IUT) and Databases (L). Michel Leclerc, on sabbatical leave since Feb. 2012, and Madalina Croitoru, on Inria delegation, ensured each a half-service.

We have some specific responsibilities in the Computer Science Master:

- Michel Leclerc is co-responsible of the master speciality DECOL (about 20 students) started in September 2011.
- Marie-Laure Mugnier is co-responsible of the Computer Science Master started in September 2011 (about 240 students), which gathers six specialties.

### **9.2.2. Supervision**

#### **9.2.2.1. PhDs**

No PhD was defended in 2012.

PhD in progress : Michaël Thomazo, Querying knowledge bases: decidability, complexity and algorithms, Sept. 2010, Marie-Laure Mugnier and Jean-François Baget

PhD in progress : Bruno Paiva Lima da Silva, Comparing Storage Systems for Large knowledge bases, Oct. 2010, Jean-François Baget and Madalina Croitoru

PhD in progress : Tjitzé Rienstra, Dynamic argumentation systems, Oct. 2010, Souhila Kaci and Leon van der Torre (University of Luxembourg)

PhD in progress : Mélanie Käfflin, Algorithms for querying large knowledge bases, Oct. 2011, Michel Leclerc and Marie-Laure Mugnier

PhD in progress : Laëtitia Guizol, Entity identification in metadata bases, Oct. 2011, Michel Leclerc and Madalina Croitoru

PhD in Progress: Akila Ghersedine, Creating and enriching lists of authorities from heterogeneous resources, Apr. 2012, Michel Leclerc and Marie-Laure Mugnier

#### **9.2.2.2. Internships**

- Joris Lamare (ENS Cachan, 6 weeks)
- Swan Rocher (Master 1 UM2, 2 months + 3 months TER)
- Clément Sipieter (Master 1 UM2, 2 months)
- Patricio Mosse (Master 2, 6 months)
- Awa Diattara (Master 2, 6 months)

### **9.2.3. Juries**

- Patrice Buche
  - Reviewer (PhD): Interrogation personnalisée des systèmes d’information dans le transport : une approche bipolaire floue, Noureddine Tamani, IRISA, ENSSAT Lannion, April 2012
  - Reviewer (PhD): Approches hybrides pour la recherche sémantique de l’information : Intégration des bases de connaissances et des ressources semi-structurées. Yassine Mrabet, University of Paris-Sud, July 2012
- Madalina Croitoru
  - Reviewer (PhD): Decision Support Systems for Brain Tumor Diagnosis: Classification and Evaluation Approaches, Javier Vicente Robledo, University of Valencia, October 2012

- Marie-Laure Mugnier
  - President of jury (PhD): Structuration de dÃ©bats en ligne Ã  l'aide d'annotations socio-sÃ©mantiques, Antoine Seilles, University of Montpellier 2, April 2012
  - Reviewer (PhD): Extraction de motifs de graphes pour caractÃ©riser des sources de donnÃ©es RDF, Adrien Basse, University of Nice, December 2012
  - President of jury (PhD): Enhancing Ontology Matching by Using Machine Learning, Graph Matching and Information Retrieval Techniques, DuyHoa Ngo, University of Montpellier 2, December 2012.
  - Jury member(PhD): Static analysis of semantic web queries, Melisachew Wudage Chekol, University of Grenoble, December 2012.
- Michel Chein
  - Jury Member (HDR): Knowledge Representation meets DataBases for the sake of ontology-based data management, FranÃ§ois GoasdouÃ©, University Paris-Sud, June 2012.

### **9.3. Popularization**

- JÃ©rÃ©me Fortin gave a talk about argumentation during the CIAG (Carrefours de l'Innovation Agronomique) in Clermont-Ferrand [http://www.inra.fr/ciag/colloques\\_alimentation/cereales](http://www.inra.fr/ciag/colloques_alimentation/cereales). This presentation led to an article published in *Innovations Agronomiques* [19].
- Patrice Buche gave a talk about argumentation to JTIC (Congress on Cereals) <http://www.jtic.eu/>, <http://www4.inra.fr/cepii/Restez-informes/Evenements/Les-videos-et-diaporamas-des-conferences-passees/JTIC-2012> in Reims. [38].

**MAIA Project-Team**

## **9. Dissemination**

### **9.1. Scientific Animation**

#### **9.1.1. Conference organization, Program committees, Editorial boards**

- Amine Boumaza co-organized the 23rd JET (Journée Evolutionnaire Thématique) held at the University Pierre et Marie Curie in Paris on November 23rd.
- Christine Bourjot was a co-organizer of the ARCO 's (Association pour la Recherche Cognitive) Workshop “ROBOTS & CORPS, Immersion Ecologique & Cognition incarnée”, October 2012.
- Christine Bourjot was a board member of AFIA (Association pour l’Intelligence Artificielle).
- Christine Bourjot was a co-organizer of the ARCO and AFIA 's Workshop SCIA 2012 Sciences Cognitives et Intelligence Artificielle, May 2012.
- Olivier Buffet was a member of:
  - the organizing committee of the “*Journées Francophones sur la Planification, la Décision et l’Action pour le contrôle de systèmes*” 2012 (**JFPDA'12**),
  - the organizing committee of the “*Conférence francophone sur l’apprentissage automatique*” 2012 (**Cap'12**),
  - the editorial board of the “*revue d’intelligence artificielle*” (RIA), and
  - the editorial board of the “*Journal of Artificial Intelligence Research*” (JAIR).
- Olivier Buffet was a reviewer for the journals: AMAI (Annals of Mathematics and Artificial Intelligence), JAIR (Journal of Artificial Intelligence Research), RIA (Revue d’Intelligence Artificielle); and for the conferences AAAI'12 (National Conference on Artificial Intelligence), ICRA'12 (International Conference on Robotics and Automation), JFPDA'12 (Journées Francophones sur la Planification, la Décision et l’Action pour le contrôle de systèmes).
- François Charpillet and Olivier Simonin co-organized the international Workshop PAL Personally Assisted Living at LORIA, November 2012. (**PAL workshop**)
- Vincent Chevrier was a member of the program committee of EUMAS 121 (European Workshop on Multi-Agent Systems) , IAT 11 (Intelligent Agent Technology), RFIA12 (Reconnaissance des Formes et Intelligence Artificielle), JFSMA12 (French conference on MAS).
- Vincent Chevrier was reviewer for RIA journal.
- Vincent Chevrier is the moderator of the mailing list of the French spoken community on multi-agent systems.
- Alain Dutech was a reviewer for JAIR (Journal of Artificial Intelligence Research), RIA (Revue d’Intelligence Artificielle), Journal of Adaptive Behavior; and for the conference JFPDA'12 (Journées Francophones sur la Planification, la Décision et l’Action pour le contrôle de systèmes).
- Nazim Fatès was a co-organiser of the ACA (Asynchronous cellular automata) workshop in ACRI 2012, a member of the steering committee of Automata 2012 (Annual workshop on cellular automata), member of the program committee of ACRI 2012, SCW'12 (Spatial computing workshop), ICAART'12, ICIST'12, CAAA'12. He was an ad hoc reviewer for the following journals : *Theoretical Computer Science*, *Entropy*, *Advances in Complex Systems*.
- Nazim Fatès was an invited speaker at COLMOT'12, a workshop on “Collective motion in biological systems: from data to models”.

- Alexis Scheuer was a reviewer for the IEEE Transactions on Robotics and on Systems, Man, and Cybernetics, for the Elsevier Journals of Robotics and Autonomous Systems and of Artificial Intelligence, and for the International Journal of Advanced Robotic Systems, as well as for the International Conference on Robotics and Automation (ICRA'13) and for the International IFAC Symposium on Robot Control (SYROCO'12).
- Bruno Scherrer was a reviewer for JAIR (Journal Of Artificial Intelligence Research), TAC (Transactions on Automatic Control), ICML'2012 (International Conference on Machine Learning), NIPS'2012 (Neural Information Processing Systems), ECAI'2012 (European Conference on Artificial Intelligence) and JFPDA'2012 (Journées Francophones sur la Planification, la Décision et l'Action pour le contrôle de systèmes).
- Bruno Scherrer was an invited speaker at a workshop of the CEA-EDF-Inria Summer School on Stochastic Optimization at Cadarache (28 Jun.)
- Olivier Simonin co-organized the International IROS'2012 “Assistance and Service robotics in a human environment” held at Vilamoura, Portugal, October 12th. ([Web page](#))
- Olivier Simonin co-organized the 7th National CAR'2012 Conference (Control Architectures of Robots) at LORIA, May 10-11 2012. ([CAR'2012](#))
- Olivier Simonin was chair and co-organizer of the SASO'2012 Demo&Contest Track (IEEE International Conference on Self-Adaptive and Self-Organizing Systems), Lyon, 2012. [saso2012](#)
- Olivier Simonin was a reviewer for the journals: JAAMAS (Journal of Autonomous Agents and Multi-Agent System), Natural Computing (Springer), the IEEE Robotics and Automation Magazine, RIA (Revue d’Intelligence Artificielle). He also reviewed papers for ICRA'2012 (International Conference on Robotics and Automation).
- Olivier Simonin was a program committee member of SASO'2012 (6th IEEE International Conference on Self-Adaptive and Self-Organizing Systems), ICINCO'2013 (10th Int. Conf. on Informatics in Control, Automation and Robotics), ICAART'2013 (5th Int. Conf. on Agents and AI.) and JF-SMA'2012 (French conference on MAS).
- Vincent Thomas was a board member of ARCO (Association pour la Recherche Cognitive)
- Vincent Thomas was a reviewer of "*Journées Francophones sur la Planification, la Décision et l'Action pour le contrôle de systèmes*" 2012 (JFPDA'2012)

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

Licence ISC (Informatique et Sciences Cognitives) : Christine Bourjot, Intelligence Artificielle et Résolution de Problèmes, 25HETD, niveau L3, Université de Lorraine, France

Master M2 SCMN (Sciences Cognitives et Media Numériques) Master SCA: Christine Bourjot, Université de Lorraine.

Master MIAGE (Méthodes Informatiques Appliquées à la Gestion): Christine Bourjot, Extraction Intelligente de Données, 18HETD, niveau M1, Université de Lorraine, France

Master SCA (Sciences Cognitives et Applications): Christine Bourjot, Système Multi-Agent, 20HETD, niveau M2, Université de Lorraine, France

Master : Vincent Chevrier, Modèles et Systèmes Multi-agents, 15CM, M2R, Université de Lorraine, France.

Master SCA (Sciences Cognitives et Applications): Alain Dutech, Apprentissage Numérique, 20HETD, niveau M1, Université de Lorraine, France.

Master : Nazim Fatès, Systèmes communicants, partie automates cellulaires, 10CM, M2R, Université de Lorraine, France.

Master : Alexis Scheuer & Olivier Simonin, Introduction à la robotique mobile, 37,5 HETD, M1 Informatique, Université de Lorraine (UHP), France.

Master SCA (Sciences Cognitives et Applications): Vincent Thomas, Agent Intelligent, 20HETD, niveau M1, Université de Lorraine, France.

Master SCA (Sciences Cognitives et Applications): Vincent Thomas, Game Design et Serious Game, 20HETD, niveau M2, Université de Lorraine, France.

Master Informatique: Vincent Thomas, Optimisation et Systemes Dynamiques Stochastiques, 22HETD, niveau M2, Université de Lorraine, France.

Supelec Metz 5eme année : Olivier Simonin, 15CM “Vie Artificielle”.

### 9.2.2. Supervision

PhD : Tomas Navarrete, Une architecture de contrôle de systèmes complexes basée sur la simulation multi-agent, Université de Lorraine, 24 oct., Vincent Chevrier

PhD in progress : Mihai Andries, “Calcul spatialisé pour l’assistance à la personne: étude d’un réseau de dalles intelligentes”, Oct. 2012, F. Charpillet (advisor), O. Simonin.

PhD in progress : Mauricio Araya, “*Near-Optimal Algorithms for Sequential Information-Gathering Decision Problems*”, Sept. 2009, F. Charpillet (advisor), O. Buffet, V. Thomas.

PhD in progress : Antoine Bautin, “Stratégie d’exploration multi-robot fondée sur les champs de potentiels artificiels”, Oct. 2009, F. Charpillet (advisor), O. Simonin.

PhD in progress : Olivier Bouré, “Robustesse des systèmes multi-agents réactifs: vers une informatique bio-inspirée ?”, Nazim Fatès, Vincent Chevrier (advisor).

PhD in progress : Benjamin Camus, “Un laboratoire virtuel pour la multi-modélisation”, Christine Bourjot, Vincent Chevrier (advisor).

PhD in progress : Timothé Collet, “Apprentissage actif par renforcement pour la classification”, Nov. 2012, O. Pietquin (advisor), O. Buffet

PhD in progress : Mihai AndriesAmndine Dubois, “assistance à la personne en perte d’autonomie: étude de l’apport d’un réseau de Kinectsà la détection et la prévention des chutes”, Oct. 2011, F. Charpillet (advisor).

PhD in progress : Arsène Fansi Tchango, “Suivi multi-caméra en environnement partiellement observé”, Oct. 2011, A. Dutech (advisor), O. Buffet, V. Thomas.

PhD in progress : Nassim Kaldé, “Exploration et reconstruction d’un environnement inconnu par une flottille de robots”, Oct. 2012, F. Charpillet (advisor), O. Simonin.

PhD in progress : Manel Tagorti, “*Approximating the Value Function for Heuristic Search in Factored MDPs*”, Nov. 2011, J. Hoffmann (advisor), B. Scherrer, O. Buffet.

PhD in progress : Mohamed Tlig, “*Reactive coordination for traffic adaptation in large situated multi-agent systems*”, Dec. 2010, O. Simonin (advisor), O. Buffet.

PhD in progress : Jeannot Yazbeck, “*Secure and robust immaterial handing for automated vehicles*”, Oct. 2010, F. Charpillet (advisor), A. Scheuer.

### 9.2.3. Juries

#### 9.2.3.1. PhD and HDR committees

- Vincent Chevrier was a member of the PhD committee of Jonathan Demange, 20 Dec. UTBM, as a referee; and Shirley Hoet, 17 Dec, UPMC, as a committee member.
- Vincent Chevrier was a member in the HDR committee as a referee of Pascal Ballet, 6 April, Université de Bretagne Occidentale
- François Charpillet was a member (as a referee) of the PhD commitee of :
  - Muhammad Ali, 11th july 2012, Laas, University of Toulouse

- Matthieu Warnier, 10th december 2012, Laas, University of Toulouse
- Senthilkumar Chandramohan, 25th september 2012, University of Avignon
- Guogang Wen, 26th october 2012, Lagis, University of Lille
- Mohamed Amine Hamila, 3rd April 2012, University of Valenciennes
- François Gaillard, 2d February 2012, LIFL, University of Lille
- François Charpillet was a member of the PhD committee of :
  - Wissam KHALIL, 2nd february 2012, Lagis, University of Lille
  - Sylvain Raybaud, 5th december 2012, Loria, University of Lorraine
  - Rui Loureiro, 6th december 2012, LAgis, University of Lille
- François Charpillet was a member of the HdR committee of :
  - Amir Hajjam El Hassani, 8 th december 2012, University of Besançon
- Alain Dutech was a member (as a referee) of the PhD committee of Shirley Hoet, 17 Dec, UPMC.
- Nazim Fatès was a member of the PhD committee of Julien Provillard, Université de Nice. The defence was held on the 6th of December in I3S laboratory, Nice.
- Bruno Scherrer was a member of the PhD committee of Jean-François Hren, Université Lille 1, 21 Jun.
- Olivier Simonin was a member of the PhD committee of M. Guezani, UTBM, 4 April.

#### 9.2.3.2. Specialist Committees

- Vincent Thomas was a member of the "Specialist committee" in Universite Nancy 2.

### 9.3. Popularization

- Christine Bourjot was co-organizer of the “Forum des Sciences Cognitives”, Université de Lorraine, November 2012.
- In the scope of the 2012 celebrations for Alan Turing’s hundredth birthday:
  - Nazim Fatès recorded a video on Turing’s heritage with Inria’s audiovisual service. This video can be accessed on <http://www.youtube.com/watch?v=6awK-FHBntc>.
  - Nazim Fatès was interviewed by the *Eureka* magazine [47] and he was a co-organiser of the three conferences on Turing that the Loria organised in September in Nancy for a large public (see <http://turing2012.loria.fr>).
  - Nazim Fatès participated in recording a program broadcasted in the “Hopital des enfants malades” in Brabois, where the main topic was Turing and Computer Science (see <http://www.loria.fr/news/informatique-aux-enfants-hospitalises-de-brabois>). A paper (with mistakes) appeared in *L’Est républicain* (November 17, 2012) to relate this event.
  - Nazim Fatès gave a talk entitled *Turing, l’intelligence des machines et le jeu* in Lycée Jacques Marquette (Pont-à-Mousson) for the annual meeting of the “Associations des anciens élèves et professeurs” (October 7, 2012).
  - Olivier Simonin was invited to the Journée “Robotique et Numérique” organized by the GDR Robotique for a talk entitled “Robotique bio-inspirée : vers une intelligence collective ?” (see <http://www.gdr-robotique.org/journee.php>).
- Vincent Thomas is preparing, in collaboration with the "Bibliothèque Universitaire du Campus Lettres", an exposition "jeux: les ateliers de la pensée" where the main objective is to promote Game as an interesting subject for academics. This exposition will include vulgarization seminars with specialists of several scientific fields (economy, psychology, computer science) and animations.
- Vincent Thomas is a participant of the Erasmus IP: "Learning Computer Programming in Virtual Environments" involving 8 foreign universities. Its objective is to promote teaching and learning of the fundamentals of computer programming through use of virtual and remote learning environments.

## MOSTRARE Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

### 9.1.1. Invited Talks

Bonifati was invited to BDA 2012 (French Conference on databases) to give a tutorial on “Schema matching and mapping: from Usage to Evaluation”. Niehren was invited to the workshop “INQUEST:INnovative QUErying of STreams at Oxford”. The title of his presentation was “Querying XML Streams with Networks of Automata”. Tommasi was invited to give a tutorial on (probabilistic) grammatical inference in “Journées SDA2 Systèmes Dynamiques, Automates et Algorithmique du pôle Algorithmique et Combinatoire du GDR IM (Informatique Mathématique) du CNRS”, see <http://jmc2012.colloques.univ-rouen.fr/>. Tison gave a lecture on Tree Automata, Turing Machines and Term Rewriting at International School on Rewriting.

### 9.1.2. Program Committees

A. BONIFATI was member of the program committee of EDBT 2012, SIGMOD 2012, and VLDB 2012.

P. DENIS was member of the program committee of AAAI 2012, ACL 2012, COLING 2012, EACL 2012, ATALA Workshop on Discourse and NLP 2012, TALN 2012, CSE 2012; he was external Member on CS Assistant Professorship search committee at University of Marseille and expert Member on Research Engineer search committee at CNRS.

A. FRENO was member of the program committee of ANNPR 2012.

G. GARRIGA continues to be member of the editorial board of Machine Learning Journal and of the Intelligent Data Analysis Journal. She was member of the program committees of ECML 2012 (area chair), CIKM 2012, ASONAM 2012, ECAI 2012, ICDM 2012 PhD Forum.

R. GILLERON was member of the program committee of ECML 2012.

J. NIEHREN is member of the steering committee of RTA (International Conference on Rewriting Techniques and Applications), of the editorial board of FUNDAMENTA INFORMATICAЕ. He was in the program committees of CMSB 2012, RTA 2012, TTATT 2012, APWeb 2012, LATA 2012, NCMA 2012, ATANLP 2012.

S. TISON is member of the editorial board of RAIRO - ITA and of the steering committee of RTA and STACS. She was member of the program committee of TTATT 2012 , PODS 2012, LATA2012, SOFSEM 2012

M. TOMMASI was member of the program committee of ATANLP 2012

### 9.1.3. French Scientific Responsibilities

A. BONIFATI was member of the selection committee in Lille for professor positions.

R. GILLERON was a member of the scientific committee of the Program Programme Blanc SIMI2, ANR. He was member of the national PES commission 27. He was member of the selection committees of assistant professors in Saint Etienne.

S. TISON is head of the computer science lab in Lille (LIFL). She was member of the scientific committee of the program Chaires Industrielles, ANR. She chairs the scientific council of "Pôle de Compétitivité Industries du Commerce". She was member of the national PES commission 27. She is elected member of the “Comité National de la Recherche Scientifique (CoNRS)” since 2012. She was in the AERES evaluation committee of LIAFA and PPS.

M. TOMMASI is leader of the LAMPADA project.

F. TORRE is member of the french national evaluation committee for computer science assistant professors (CNU 27).

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

Master (Mocad): Information extraction, 18h, M2, Université Lille 1, France by J. NIEHREN  
 Master (Mocad): Information extraction, 18h, M2, Université Lille 1, France by P. DENIS  
 Master (Mocad): Information extraction, 18h, M2, Université Lille 1, France by A. BONIFATI  
 Master (Mocad): Information extraction, 18h, M2, Université Lille 1, France by A. FRENO  
 Master: Supervised classification, 45h, M1, Université Lille 1, France by R. GILLERON  
 Master: Unsupervised classification, 30h, M1, Université Lille 3, France by R. GILLERON  
 Master: Information retrieval, 30h, M1, Université Lille 3, France by R. GILLERON  
 Master: Semantic Web, 36h, M2, Université Lille 1, France by R. GILLERON  
 Master: Advanced Databases, 36h, M1, Université Lille 3, France by S. STAWORKO  
 Licence: Statistical Learning, 63h, L3, Université Lille 3, France by M. KELLER  
 Master: Modelization XML, 24h, M1, Université Lille 3, France by S. STAWORKO  
 Licence: Artificial Intelligence and Logic, 63h, L3, Université Lille 3, France by S. STAWORKO  
 Master: Introduction to XML, 40h, M1, Université Lille 3, France by S. STAWORKO  
 Master : Networks, 25h, M2, Université Lille 3, France by M. TOMMASI  
 Master : XML, 25h, M2, Université Lille 3, France by M. TOMMASI  
 Master : Databases, XML, 25h, M2, Université Lille 3, France by M. TOMMASI  
 Master : Document Management systems, 25h, M1, Université Lille 3, France by M. TOMMASI  
 Master : Introduction to algorithms, 25h, M1, Université Lille 3, France by M. TOMMASI  
 Licence : Databases, object oriented programming, 60h, L3, Université Lille 3, France by M. TOMMASI  
 Master : Advanced algorithms and complexity, M1, 57h, Université Lille 1, by S. TISON  
 Licence: Databases, 53h, L3, Université Lille 1, France, by A-C. CARON  
 Master: Advanced databases, 50h, M1, Université Lille 1, France, by A-C. CARON  
 Master: Semantic Web, 20h, M2, Université Lille 1, France, by A-C. CARON  
 Licence: XML Technologies, 50h, M1, Université Lille 1, France by Y. ROOS  
 Master: XML Modelization, 40h, M1, Université Lille 1, France by Y. ROOS  
 Master: XML Technologies, 16h, M2, Université Lille 3, France by A. LEMAY

### **9.2.2. Supervision**

PhD June 2012: J.-B. FADDOUL, Machine learning and applications to social network analysis. Since Dec. 2008. Supervised by Gilleron and Chidlowskii from XEROX European Research Center (XRCE).

PhD September 2012: B. GROZ, XML database security and access control. Since Sept. 2008. Supervised by Tison and Staworko.

PhD in Progress: G. LAURENCE, Learning XML transformations for data exchange on the web. Since Sept. 2008. Supervised by Tommasi, Niehren, Staworko and Lemay.

PhD in Progress: J. DECOSTER, Statistical relational learning of XML transformations. Since Sept. 2009. Supervised by Tommasi and Torre.

PhD in Progress: A. M. NDIONE, Probabilistic algorithms for tree automata and transducers. Since Sept. 2010. Supervised by Niehren and Lemay.

PhD in Progress: T. SEBASTIAN, Streaming algorithms for XSLT. Since May 2011. Supervised by Niehren.

PhD in Progress: T. RICATTE, Graph Based Learning for Decisional Databases. May 2011. Supervised by Garriga and Gilleron.

PhD in Progress: A. BOIRET, Top-down tree transformations with look-ahead : foundations and learning. Since Sept. 2011. Supervised by Niehren and Lemay.

PhD in Progress: A. CHATEL, Guided Unsupervised Learning. Since Sept. 2012. Supervised by Denis and Tommasi.

PhD in Progress: R. CIUCANU, Towards learning cross-model database mappings. Since Sept. 2012. Supervised by Boneva, Bonifati and Staworko.

### **9.2.3. Committees**

A. BONIFATI was member of the PhD committee of Asma Souihli, Telecom ParisTech (Paris, France) and Rashed Khalil Khalil Salem at Université Lumière Lyon II (Lyon, France); P. DENIS was member of the PhD jury of Emili Sapena at UPC Barcelona; R. GILLERON was member of the PhD jury of J.B. Faddoul (Lille), Y. Benabbas (Lille) and A. Bellet (Saint-Etienne); J. NIEHREN was a reviewer of the Habilitation committee of Pierre Senellart at Telecom Paris. S. STAWORKO was member of the PhD jury of B. Groz (Lille); M. TOMMASI was member of the PhD jury of M. Oita (Telecom Paris); F. TORRE was member of the PhD jury of J.B. Faddoul (Lille)

## **9.3. Popularization**

**QuiXProc** A video (<http://videotheque.inria.fr/videotheque/doc/787>) was projected at WWW 2012 (at the booth of Inria); a demonstration “des flux financiers vers les flux XML” was done during the “Rencontres Inria - Industrie: Technologies du web et mobilité au service de l’innovation bancaire et de l’assurance”.

**Artistic project** Denis, Keller and Gilleron collaborate to the artistic project “This is Major Tom to Ground Control” by Véronique Béland ([http://www.veroniquebeland.com/Veronique\\_Beland/This\\_is\\_Major\\_Tom\\_to\\_Ground\\_Control.html](http://www.veroniquebeland.com/Veronique_Beland/This_is_Major_Tom_to_Ground_Control.html)). They contribute to the definition of a probabilistic generator of texts.

## **OAK Team**

# **9. Dissemination**

## **9.1. Scientific Animation**

### **9.1.1. Participation in Editorial Boards**

M. Herschel is the guest editor of the special issue on Data Integration of the journal *it-Information Technology*, Volume 54, Issue 3, 2012.

I. Manolescu is the editor in chief of the ACM SIGMOD Record, an associate editor of the ACM Transactions on Internet Technologies, and a member of the “Experiments and Analysis” track of PVLDB.

### **9.1.2. Participation in Conference Organization**

Members of the project have been chairs of scientific events:

Ioana Manolescu

- Bases de Données Avancées (BDA) 2012
- IEEE International Conference on Data Engineering (ICDE) 2012, “Semistructured Data, XML and RDF” track
- Extending Database Technologies (EDBT) 2012 conference, Tutorial track
- Co-chair of the VLDB 2012 PhD workshop

Members of the project have participated in program committees:

Nicole Bidoit

- Bases de données Avancées (BDA) 2012

Dario Colazzo

- IEEE International Conference on Data Engineering (ICDE) 2012

François Goasdoué

- Bases de Données Avancées (BDA) 2012
- IEEE International Conference on Tools with Artificial Intelligence (ICTAI) 2012

Melanie Herschel

- IEEE International Conference on Data Engineering (ICDE) 2012
- Conference on Very Large Databases (VLDB) 2012
- VLDB PhD Workshop 2012
- Bases de Données Avancées (BDA) 2012

Ioana Manolescu

- ACM SIGMOD Conference 2012
- IEEE International Conference on Data Engineering (ICDE), “Cloud, Data Warehousing, and Large Data” track
- Data Analytics in the Cloud Workshop, in collaboration with EDBT/ICDT 2012
- Non-conventional Data Access Workshop, in collaboration with the ER conference 2012
- Cloud Intelligence Workshop, in collaboration with VLDB 2012

Members of the project participate in steering committees:

Nicole Bidoit

- Ecole thématique Masse de données Distribuées, Aussois, 27 mai - 1er juin 2012

Ioana Manolescu

- Workshop on Open Data (WOD) 2012

### **9.1.3. Invited Presentations**

Ioana Manolescu gave a keynote presentation titled “Triples with a purpose” at the Semantic Search Workshop (SSW) next to the VLDB Conference 2012.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

Licence, Nicole Bidoit, Bases de données, 25.5h éq. TD, L3, Université Paris-Sud, France

Master, Nicole Bidoit, SGBD relationnels: implémentation, 18 éq. TD, M2, Université Paris-Sud, France

Master, Nicole Bidoit, Bases de données et Systèmes d'Information, 27 éq. TD, M2, Université Paris-Sud, France

Master, Nicole Bidoit, Mise à Niveau en Informatique - Bases de Données, 40 éq. TD, M1, Université Paris-Sud, France

Master, Nicole Bidoit, Base de données Avancées, 30 éq. TD, M1, Université Paris-Sud, France

Master, Nicole Bidoit, Données et connaissances pour le WEB, 32 éq. TD, M2, Université Paris-Sud, France

Master : Dario Colazzo, SGBD relationnels: tuning d'applications , 21h éq. TD, M2, Université Paris-Sud, France

Master : Dario Colazzo, Bases de données , 21h éq. TD, M2, Université Paris-Sud, France

Master : Dario Colazzo, Systèmes de Gestion de Bases de Données, 54h éq. TD, Polytech, Université Paris-Sud, France

Master : Dario Colazzo, Base de Données, 21h éq. TD, Polytech, Université Paris-Sud, France

Master : Dario Colazzo, Base de Données Avancées, 31h éq. TD, Polytech, Université Paris-Sud, France

Master : Dario Colazzo, Mise à niveau bases de données, 17h éq. TD, M1, Université Paris-Sud, France

Master : Dario Colazzo, Gestion des données sur Internet, 18h éq. TD, M1, Université Paris-Sud, France

Master : Dario Colazzo, Base de Données , 20h éq. TD, Polytech, Université Paris-Sud, France

Master : Dario Colazzo, Tutorat d'apprentis, 20h eq. TD, Polytech, Université Paris-Sud, France

Licence : François Goasdoué, Bases de données, 62,5h éq. TD, L3, Université Paris-Sud, France

Master : François Goasdoué, Web Sémantique, 74h éq. TD, M2, Université Paris-Sud, France

Master : François Goasdoué, Données et connaissances pour le Web, 7,5h éq. TD, M2, Université Paris-Sud, France

Master : François Goasdoué, Modèles de raisonnement distribué, 4,5h éq. TD, M2, Université Paris-Sud, France

Master : François Goasdoué, Décision et raisonnement, 9h éq. TD, M2, Université Paris-Dauphine, France

Master : François Goasdoué, Ontologies et Web Sémantique, 13,5h éq. TD, M2, Université Paris-Dauphine, France

Master: Melanie Herschel, Entrepôts de données et requêtes OLAP, 99,5h éq. TD, M2, Université Paris-Sud, France

Master: Melanie Herschel, Intégration de données et Web sémantique, 4,5h éq. TD, M2, Université Paris-Sud, France

Master : Ioana Manolescu, Données Sémi-Structurées et XML, 18h éq. TD M2, Université Paris-Sud, France

Master : Ioana Manolescu, Services Web, 27 éq. TD, M2, Université Paris-Dauphine, France

### **9.2.2. Supervision**

PhD & HdR :

HdR : François Goasdoué, Knowledge Representation meets DataBases for the sake of ontology-based data management [1], Univ. Paris-Sud, 11/07/2012

PhD : Mohamed-Amine Baazizi, Static Analysis for the Optimization of Temporal XML document Updates, Univ. Paris-Sud, 07/09/2012, Nicole Bidoit et Dario Colazzo

PhD : Noor Malla, Partitioning XML data, towards distributed and parallel management, Univ. Paris-Sud, 21/09/2012, Nicole Bidoit et Dario Colazzo

PhD : Federico Ulliana, Types for Detecting XML Query-Update Independence, Univ. Paris-Sud, 12/12/2012, Nicole Bidoit et Dario Colazzo

PhD : Konstantinos Karanasos, View-Based Techniques for the Efficient Management of Web Data [2], Univ. Paris-Sud, 29/06/2012, François Goasdoué and Ioana Manolescu

PhD in progress : Asterios Katsifodimos, Efficient Distributed Views for XML Data Management, Univ. Paris-Sud, 29/06/2012, Ioana Manolescu

PhD in progress : Julien Leblay, Efficient management of annotated documents, 01/10/2010, François Goasdoué and Ioana Manolescu

PhD in progress : Alexandra Roatis, Traitement efficace de requêtes SPARQL avec extensions OLAP pour entrepôts RDF, 01/09/2011, Dario Colazzo, François Goasdoué and Ioana Manolescu

PhD in progress : Aikaterini Tzompanaki, Foundations and Algorithms to Compute the Provenance of Missing Data, 1/11/2012, Melanie Herschel and Nicole Bidoit

PhD in progress : Stamatis Zampetakis, Scalable algorithms for cloud-based semantic web data management, 15/10/2012, François Goasdoué and Ioana Manolescu

### **9.2.3. Juries**

- Nicole Bidoit, PhD defense committee of François Hantry, “Problèmes basés sur les Causes dans le cadre de la Logique Temporelle Linéaire : Théorie et Applications”, Univ. Lyon 1, 17/09/2012.
- Dario Colazzo, PhD defense committee of Bogdan Butnaru, “Optimizations of XQuery in peer-to-peer distributed XML databases”, Univ. Versaille, 12/04/2012.
- François Goasdoué, PhD defense committee of Jitao Yang, “Un modèle de données pour bibliothèques numériques”, Univ. Paris-Sud, 30/05/2012.
- Ioana Manolescu, PhD defense committee of Silviu Maniu, “Data Management in Social Networks”, Telecom ParisTech, 28/09/2012.
- Ioana Manolescu, PhD defense committee of Jordi Creus, “ROSES : Un moteur de requêtes continues pour l’agrégation de flux RSS à large échelle”, UPMC - Sorbonne Universités, 7/12/2012.
- Ioana Manolescu, HDR defense committee of Cédric du Mouza, “Indexing Very Large Datasets”, Université Paris-Dauphine, 30/11/2012.

## **9.3. Popularization**

Ioana Manolescu presented the issues involved in cloud-based management of Web data, to a panel on the technology aspects of Big Data, at the “Big Data” industrial conference at Paris on March 20, 2012.

## **ORPAILLEUR Project-Team**

# **9. Dissemination**

## **9.1. Scientific Animation**

- The scientific animation in the Orpailleur team is based on two seminars, the Team Seminar and the BINGO seminar. The Team Seminar is held at least twice a month and is used either for general presentations of people in the team or for inviting external researchers for general interest. The BINGO seminar is held also at least twice a month and is used for more specific presentations focusing on biological, chemical, and medical topics. Actually, both seminars are active and are useful instruments for researchers in the team.
- Members of the Orpailleur team are all involved, as members or as head persons, in various national research groups (mainly GDR CNRS I3 and BIM).
- The members of the Orpailleur team are involved in the organization of conferences, as members of conference program committees (ECAI, IJCAI, PKDD, ICFCA ...), as members of editorial boards, and finally in the organization of journal special issues.
- This year, Dave Ritchie co-organized a workshop on Computational Challenges in Structural Biology (CCSB-2012; <http://ccsb2012.loria.fr>).
- Emmanuel Nauer co-organized a new workshop, called "Cooking with Computers" at ECAI 2012 (Montpellier). This workshop aims at bringing together researchers from every possible fields of artificial intelligence applying their research on food and cooking. The next workshop will take place in 2013 at the ICJAI Conference (August 2013, Beijing, China).
- Amedeo Napoli was one of the co-organizers of the ECAI workshop FCA4AI (What Artificial Intelligence can do for FCA), together with Sergei O. Kuznetsov and Sebastian Rudolph (see the website of the workshop <http://www.fca4ai.hse.ru> and the CEUR proceedings <http://ceur-ws.org/Vol-939/>). Based on the large success of this first workshop, a new edition will take place at the ICJAI Conference in August 2013, Beijing, China.
- Chedy Raïssi was a co-organizer of the "PinSoDa" workshop, joint with the 11th IEEE International Conference on Data Mining (ICDM 2012), Brussels, Belgium. The purpose of this workshop was to encourage principled research that will lead to the advancement of the science of privacy and data protection on social data.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

- The members of the Orpailleur team are involved in teaching at all levels of teaching in University of Lorraine (in Nancy for most of them). Actually, most of the members of the Orpailleur team are employed on university positions.
- The members of the Orpailleur team are also involved in student supervision, at all university levels, from under-graduate until post-graduate students.
- Finally, the members of the Orpailleur team are involved in HDR and thesis defenses, being thesis referees or thesis committee members.

## **SMIS Project-Team**

# **9. Dissemination**

## **9.1. Scientific Animation**

- Philippe Pucheral
  - Area Editor of the Information Systems international journal (2007-now).
  - PC member of MOBIWIS'12, CODAPSY'12, EDBT'12 (demo).
  - Member of the recruiting committees of UVSQ and Paris VI.
  - Co-founder of the bi-annual French Summer School “Masses de Données Distribuées” and co-organiser of this school in 2010 and 2012.
- Luc Bouganim
  - President of the BDA Board, the steering committee of the national French conference on Databases.
  - PC member of MOBIWIS'12, BDA'12.
  - Member of the recruiting committees of INSA Lyon.
  - Reviewer for the Information Systems international journal and ACM TKDE journal.
  - President of the Inria Post-Doc and Delegation Commission.
  - Member of the Inria “Bureau du Comité des Projets” (BCP).
  - Member of the Inria "Cordi-S (Inria PhD grant)" commission.
  - Member of the Commission PES (Prime d’Excellence Scientifique) for computer science at UVSQ (since 2010).
- Nicolas Anciaux
  - Demonstration chair at BDA 2012.
  - Co-organizer of the 4th edition of Atelier Protection de la Vie Privée (APVP 2013)
  - Member of Commission de Developpement Technologique (CDT) at Inria Rocquencourt
  - Member of the Editorial Board of TSI Journal (Technique et Science Informatiques) (2007 – until 2012).
- Benjamin Nguyen
  - Member of the Advisory Committee of the W3C for the UVSQ, of the W3C XQuery Working Group (Test Suite Editor) and of the W3C Social Web Interest Group.
  - PC member of VLDB 2012, VLDB 2012 PhD Workshop, ICCSAMA 2013, BDA 2012.
  - Member of the editorial committee of TSI (Techniques et Sciences Informatiques), Eds. Lavoisier.
  - Organizer of Atelier Protection de la Vie Privée (APVP) 2013.
  - Member of the Selection Committee of Paris-VI and INSA Lyon.
  - Elected member of the PRISM Laboratory Council.
  - Elected member of the UVSQ Science faculty Scientific Committee.
  - In charge of the UVSQ Computer Science Masters diploma. In charge of the 2014/2015 proposal.
  - Responsible for the UVSQ continuous training of High School teachers in computer science.

- Iulian Sandu Popa
  - Tutorial chair of MOBILWARE 2012 (5th International Conference on MOBILE Wireless MiddleWARE, Operating Systems, and Applications).
  - Reviewer for the Earth Science Informatics Journal and the Information Systems Journal.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

SMIS is a joint project-team with University of Versailles St-Quentin (UVSQ) and CNRS. Hence SMIS members are naturally deeply involved in teaching.

- P. Pucheral: (130h/y)
  - Full professor at UVSQ.
  - Director of the research Master COSY (UVSQ).
  - Member of the HDR committee of the STV doctoral school.
  - Courses on databases, DBMS architecture and security in Master1, Master2 and engineer school ISTY.
- B. Nguyen: (107h/y)
  - Associate professor at UVSQ.
  - Courses on object programing, databases, XML in undergraduate and Master2.
  - Courses on Teaching CS courses for High School teachers.
- I. Sandu Popa: (192h/y)
  - Associate professor at UVSQ.
  - Courses on C programing and databases in undergraduate and Master2.
- L. Bouganim: (90h/y)
  - Courses on DBMS architecture, data security, database technology in Master1 and Master2 (AFTI, Orsay) and in engineering school (ENST Paris).
- N. Anciaux: (90h/y)
  - Courses on DBMS internal mechanisms, database technology in Master1 and Master2 (UVSQ), and in engineering school (ENSTA Paris).
- L. Le Folgoc: (64h/y)
  - Courses on Relational Database Concepts and SQL, system programming in Masters 1 (UVSQ).

### **9.2.2. Supervision**

Lionel Le Folgoc. Serveurs personnels de données : réflexions sur leur conception et leurs performances. PhD Thesis University of Versailles Saint-Quentin-en-Yvelines (UVSQ), December 2012, co-supervised by Luc Bouganim and Nicolas Anciaux.

Bogdan Butnaru, Optimizations of XQuery in peer-to-peer distributed XML databases. PhD Thesis University of Versailles Saint-Quentin-en-Yvelines (UVSQ), April 2012, co-supervised by Benjamin Nguyen and Georges Gardarin.

PhD in progress : Quoc-Cuong To, starting in November 2012, Co-supervised by Philippe Pucheral and Benjamin Nguyen.

PhD in progress : Saliha Lallali, starting in November 2012, Co-supervised by Philippe Pucheral, Nicolas Anciaux and Iulian Sandu Popa.

PhD in progress : Matias Bjørling, starting in December 2011, co-supervised by Philippe Bonnet and Luc Bouganim.

PhD in progress : Niv Dayan, starting in December 2011, co-supervised by Philippe Bonnet and Luc Bouganim.

### **9.2.3. Juries**

- L. Bouganim
  - Referee for the PhD thesis of Toufik Sarni: Vers une Mémoire Transactionnelle Temps Réel, University of Nantes, October 2012.
  - Referee for the PhD thesis of Stéphane Jacob: Protection Cryptographique des Bases de Données : Conception et Cryptanalyse, University of Paris 6, March 2012.
  - Jury member of the PhD defense of Lionel Le Folgoc: Personal Data Server Engine: Design and Performance Considerations, University of Versailles, December 2012.
  - Jury member of the PhD defense of Hien Thi Thu Truong: A Contract-based and Trust-aware Collaboration Model, University of Lorraine, December 2012.
- N. Anciaux
  - Jury member of the PhD defense of Lionel Le Folgoc: Personal Data Server Engine: Design and Performance Considerations, University of Versailles, December 2012.
- B. Nguyen
  - Jury member of the PhD defense of Bogdan Butnaru : Optimizations of XQuery in peer-to-peer distributed XML databases, University of Versailles, April 2012
  - Jury member of the PhD defense of Noor Malla : Partitioning XML data, towards distributed and parallel management, University of Paris-XI, September 2012.

## **9.3. Popularization**

SMIS members have an important dissemination activity, motivated both by the popularity of the addressed research domain (security/privacy) and of the targeted applications (e.g., personal medical folder), leading to interactions with different institutions (e.g., the French Deputy Chamber, the Parliamentary Office for Evaluation of Scientific and Technological Options (OPECST), the French Network and Information Security Agency), interviews resulting in articles in large audience magazine (e.g., “La Recherche”, the CNRS Journal or BBC news) and talks and demonstrations targeting industrials in wide audience conferences (e.g., JavaOne, e-Smart, “Les rendez-vous Carnot”)

- Organization of the French Summer School “Masses de Données Distribuées”, Philippe Pucheral, June 2012
- Presentation at the “1/2 heure de science”, Database cryptography, Luc Bouganim, March 2012, <http://www.inria.fr/centre/paris-roquencourt/recherche/la-demi-heure-de-science/2012/database-cryptography>.
- Presentation at the “Colloque du labex DIGICOSME”, Orsay, Architectures pour des grandes bases de données sécurisées, Luc Bouganim, September 2012.
- Participation to the realization of a pedagogic video on Security and Safety, Luc Bouganim, October 2012.
- Participation to the Round Table at the 5th Open World Forum (OWF), Paris, Logiciels libres, culture et enseignement de l’informatique, Benjamin Nguyen, 2012.
- Invited talk at the “Les mardis du CRIDS”, Le projet CAPPRIS, Benjamin Nguyen, July 2012.

## WAM Project-Team

# 8. Dissemination

## 8.1. Scientific Animation

Cécile Roisin is a member of the steering committee of the [ACM Symposium on Document Engineering](#).

N. Layaïda is a member of Inria Grenoble-Rhône-Alpes Committee for Employment of Scientists: Inria hiring of Post-docs, Delegates and Secondments.

N. Layaïda, is program committee member of the 2nd International Conference on Model & Data Engineering (MEDI'2012). 3-5 October 2012. Poitiers, Futuroscope - France.

P. Genevès and N. Layaïda are program committee members of ACM Symposium on Document Engineering. 4-7 September 2012. Telecom ParisTech. Paris.

P. Genevès is a permanent member of Inria Grenoble-Rhône-Alpes Committee for Technological Development: Inria hiring of Research Engineers.

In 2012, P. Genevès has been a referee for the following international journals: ACM Transactions on Database Systems, Data & Knowledge Engineering, and Theoretical Computer Science.

In 2012, C. Roisin has been a referee for the following international conferences: ACM Multimedia 2012, ACM Document Engineering, and WWW2012 Demo Track.

## 8.2. Teaching - Supervision - Juries

### 8.2.1. Teaching

Licence: Computer Networks, 190h/year, L2, University of Grenoble – C. Roisin

Licence: Logic, 45h/year, L3, University of Grenoble – N. Gesbert

Licence: C Programming project, 12h/year, L3, University of Grenoble – N. Gesbert

Master: Logic, 22h30/year, M1, University of Grenoble – N. Gesbert

Master: Web development, 22h30/year, M1, University of Grenoble – N. Gesbert

Master: Software analysis, conception and validation, 45h/year, M1, University of Grenoble – N. Gesbert

Master: Foundations for XML: logics and automata, 18h/year, M2 (Mosig), University of Grenoble – P. Genevès

Master: SIGAL Multimedia systems and web languages, 9h/year, M2 (Mosig), University of Grenoble – N. Layaïda

### 8.2.2. Supervision

PhD: M. Chekol, Static analysis of semantic web queries, Université de Grenoble, 19 December 2012, N. Layaïda and J. Euzenat

PhD in progress: N. Guido, Satisfiability for Expressive  $\mu$ -calculi, since October 2012, C. Roisin and P. Genevès

PhD in progress: M. Junedi, Query-Update Independence Analysis under Constraints , since October 2012, C. Roisin and N. Layaïda

### 8.2.3. Juries

PhD: B. Baccot, 23 November 2012, University of Toulouse (C. Roisin as reviewer).

PhD: T.N. Luong, 12 December 2012, University of Pau (C. Roisin as reviewer).

### **8.3. Popularization**

J. Lemordant and N. Layaïda have contributed to [Inriality](#) by a short video entitled Voyager dans le temps. Paris. November 2012.

J. Lemordant, N. Layaïda and V. Quint have contributed to the Forum 4i (Innovation, Industrie, Investissement, International), Grenoble, 2012. We showcased indoor navigation with IXE.

J. Lemordant has participated in several events to popularize recent results in the areas of pedestrian navigation and mixed reality, namely the 6th European eAccessibility Forum and the State Of The Map 2012 conference.

**WIMMICS Team**

## 9. Dissemination

### 9.1. Scientific Animation

**Zeina Azmeh**

Reviewer for the 9th international conference on Concept Lattices and their Applications (CLA 2012), and Program Committee member of the 3rd international conference on Cloud Computing and Services Science (CLOSER 2013).

**Michel Buffa** Program Committee member of WWW Demo track, WWW Workshop on Semantic Web Collaborative Spaces (SWCS).

**Elena Cabrio**

Program Committee member of the *1st Joint Conference on Lexical and Computational Semantics (\*SEM 2012)*, and of *Semantic Relations-II. Enhancing Resources and Applications workshop*, at LREC 2012 (Language Resources and Evaluation Conference). Moreover, she was part of the Evaluation Committee assigning the Best PhD Dissertation Award of ATALA 2012 (French computational linguistics member association).

**Olivier Corby**

Program committee member of EKAW, IC, CNRIA, IIIS, CWC ECAI Workshop, IJMSO, More-BI, SOS DLWD, WWW demo track.

With Catherine Faron-Zucker and Johan Montagnat (I3S, Modalis), organization of a three days workshop for the CrEDIBLE Mastodons CNRS Research Program (15 to 17 october) <sup>26</sup>.

He is member of W3C SPARQL 1.1 WG.

**Catherine Faron-Zucker**

Reviewer, Program Committee member of:

IJHCS, KEOD, AKDM, Special Track on Peer Reviewing (PR) of the Int. Conf. on Knowledge Generation, Communication and Management (KGCM), KSE, IC, EGC Maghreb, JEESI, CNRIA.

Reviewer for ANR, Crédit Impôt Recherche DRRT Ile-de-France, "Bonus Qualité Recherche" (BQR) for scientific council of university Paris 13.

**Fabien Gandon**

Reviewer:

Journals: Advances in Knowledge Discovery and Management, Semantic Web Journal special issue on Linked Datasets Descriptions.

Conferences: AINA, EGC, ESWC, FutureTech, Hypertext, IC, ISWC, RFIA, SAC, SemWeb.Pro, TOTH, WebS, WebScience, WI.

He was general co-chair of WWW at Lyon.

Workshops:

AlmWD, LDOW, MARAMI, MSM, SocialComNet, SOS, SPIM, SSNAD, SWCS.

**Alain Giboin**

Member of the program committee of COOP, DeViNT, IC, I-SEMANTICS.

<sup>26</sup>[https://credible.i3s.unice.fr/doku.php?id=atelier\\_15-17\\_octobre](https://credible.i3s.unice.fr/doku.php?id=atelier_15-17_octobre)

Reviewer for the International Journal of Human-Machine Studies.

Reviewer for the ANR CONTINT program.

Member of the the steering committee of the COOP conference series (International Conferences on the Design of Cooperative Systems).

Co-organizer – with Pascal Salembier (Université de Technologie de Troyes, France), Carla Simone (Universita Milano Bicocca, Italy), and Cyril Bossard (UFR STAPS de Brest, France) – of the Workshop *Do We Really Need to Share to Cooperate?*, in conjunction with COOP'2012, The 10th International Conference on the Design of Cooperative Systems, Marseille, France, May 29th.

#### **Nhan Le Thanh**

Program committee member of the 2nd International Conference on Model & Data Engineering (MEDI2012) and the 4th International Conference on Knowledge and Systems Engineering (KSE 2012).

#### **Isabelle Mirbel**

Member of the editorial board of the journal *Ingénierie des Systèmes d'Information* (Hermès).

Co editor of a special issue of the *International Journal of Information System Modeling and Design* (IGI Global) Volume 4, 2012.

PC member 24th International Conference on Advanced Information Systems Engineering (CAISE 2012).

PC member for the workshop *Ontologies et Jeux de Données pour évaluer le web sémantique (OJD)* in conjunction with 23ièmes journées francophones d'ingénierie des connaissances.

Reviewer for the *Requirements Engineering Journal* (Springer).

Reviewer for ODBase 2012.

PC member Doctoral Consortium of INFORSID 2012.

Co-chair of the doctoral consortium of *24th International Conference on Advanced Information Systems Engineering*.

#### **Andrea Tettamanzi**

Program co-chair of the “EvoFin” track of the EvoApplications 2013 conference and as the chair of Evo-Transfer, a technology-transfer event, now in its 2nd edition, in the framework of Evo\* 2013. Referee for the Information Sciences journal, the Computational Intelligence journal, and the Journal of Data Semantics. Program committee member of the IAT 2012 and PPSN 2012 conferences.

#### **Serena Villata**

Co-organizer and co-chair of the first workshop on "Artificial intelligence meets the Web of Data (AImWD)" which was co-located with the European Conference on Artificial Intelligence (ECAI-2012).

Program committee member of international journals, conferences and workshops in computer science. In particular, among others: Journal of Logic and Computation, Synthese, Journal of Approximate Reasoning, AAMAS-2012, AImWD-2012.

She is part of the W3C Working Group on the Linked Data Platform which has the aim to develop the specifications for HTTP interaction with Linked Data.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

**Semantic Web:** 36h. L2, IUT Nice UNS, France.

Participants: Olivier Corby, Catherine Faron-Zucker.

**Semantic Web:** 45h. Master 2, IFI KIS PolyTech Nice, UNS, France.

Participants: Olivier Corby, Catherine Faron-Zucker, Fabien Gandon.

**Knowledge Engineering:** 20h. Master 2, IFI KIS PolyTech Nice, UNS, France.

Participants: Catherine Faron-Zucker, Fabien Gandon, Andrea Tettamanzi.

**Semantic Web:** 2h. Ecole Centrale Paris.

Participant: Fabien Gandon.

**Semantic Web:** 3h. ENS Cachan.

Participant: Fabien Gandon.

**Semantic Web:** 3h. Miage UNS

Participant: Fabien Gandon.

**Semantic Web:** 8h. URFIST Rennes.

Participant: Fabien Gandon.

**Human-Computer-Interaction (HCI) Design and Evaluation:** 35h. Master 2, PolyTech Nice, UNS.

Participant: Alain Giboin

**Post WIMP interaction paradigms and interface evolution:** 4h. Master 2 Polytech UNS.

Participant: Alain Giboin.

**Task and Activity Analysis for HCI design and evaluation:** 6h, Master 2 *Sociology and Ergonomics of Digital Technologies*, UNS

Participant: Alain Giboin

**Place of Ergonomics in Agile Projects:** 2h. Licence Pro IDSE, IUT, UNS.

Participant: Alain Giboin.

**Web Services:** 36h. MASTER MIAGE 2, UNS.

Participant: Serena Villata

**Web Services:** 42h. MASTER MIAGE 2, UNS.

Participant: Zeina Azmeh.

**Object Oriented Design: UML & OCL:** 36h. L3 MIAGE, UNS.

Participant: Maxime Lefrançois.

**Object Oriented Programming: Java:** 18h. L3 MIAGE, UNS.

Participant: Maxime Lefrançois.

**Enterprise Components Architecture: Java EE 6, EJB 3.1, JSF 2.0:** 13h. M2 MIAGE UNS

Participant: Maxime Lefrançois.

**XML Technologies:** 36h. Master 1 MIAGE, UNS.

Participant: Elena Cabrio.

**Web Programming:** 30h. DUT Info S1 et S2 at IUT, UNS.

Participant: Nhan Le Thanh.

**Design tools and Programming with relational DBMS:** 105h. DUT S3 Info at IUT, UNS.

Participant: Nhan Le Thanh.

**Theoretical basis of Computation:** 45h. DUT S4 Info at IUT, UNS.

Participant: Nhan Le Thanh.

**Logical Data Models and languages:** 24h. Licence Pro Info LP3 at UNS.

Participant: Nhan Le Thanh.

**Design and Development of DBMS services:** 24h. Licence Pro Info LP3 at UNS.

Participant: Nhan Le Thanh.

**Architecture of Software Engineering:** 12h. Licence Pro Info LP3 at UNS.

Participant: Nhan Le Thanh.

**Introduction to the Web:** 37h. Licence 1, UFR Sciences UNS.

Participant: Andrea Tettamanzi.

**Algorithmics, Object Oriented Programming, Python:** 50h. Licence 2, UFR Sciences UNS.

Participant: Andrea Tettamanzi.

**Distributed Systems:** 18h. Master MIAGE 1, UFR Sciences UNS.

Participant: Andrea Tettamanzi.

**Web 2.0, Web Services, HTML5:** 40h. Master 2 UNS.

Participant: Michel Buffa.

**Distributed Web Development:** 40h. Master 2 UNS.

Participant: Michel Buffa.

**Web Technologies:** 40h. Master 1 UNS.

Participant: Michel Buffa.

**Java Certification:** 25h. Master 2 UNS.

Participant: Michel Buffa.

**Plasticity of User Interfaces, HTML5:** 8h. Master 2 Polytech UNS.

Participant: Michel Buffa.

**New Interaction Means, HTML5:** 8h. Master 2 Polytech UNS.

Participant: Michel Buffa.

**Linux shell:** 66h. IUT UNS.

Participant: Franck Berthelon.

**Linux:** 24h. IUT UNS.

Participant: Khalil Bouzidi.

**DBMS and J2EE:** 22h. IUT UNS.

Participant: Khalil Bouzidi.

**Langages for documents : XML, XSD et XSL:** 32H. Master 2 UNS.

Participant: Catherine Faron-Zucker.

**Network Programming:** 12h. Master 1 UNS.

Participant: Catherine Faron-Zucker.

**Object Oriented Programming and Algorithmics:** 130h. Licence 3 UNS.

Participant: Catherine Faron-Zucker.

**Statistical Data Analysis:** 39h. Licence 3 UNS.

Participant: Catherine Faron-Zucker.

**HTML5 :** W3C Online Course, delivers a W3C certification.

Participant: Michel Buffa.

**HTML5 :** Tutorial at WWW Conference, April 2012, Lyon, France.

Participant: Michel Buffa.

**Argumentation for Agent Societies:** Summer School at EASSS 2012.

Participant: Serena Villata.

### **9.2.2. Supervision**

PhD:

Adrien Basse, *Extracting Graph Patterns to Characterize RDF Data Sources*, University Gaston Berger, Saint-Louis, Sénégal, december 10th, Fabien Gandon;

PhD in progress :

- Pavel Arapov**, *Semantic Application Wiki*, UNS, Michel Buffa, Nhan Le Thanh ;
- Franck Berthelon**, *Emotional State Detection from Electroencephalogram Data for "Serious Games"*, UNS, Peter Sander ;
- Khalil Bouzidi**, *Semantic Web Approach to Support the Creation of Technical Regulatory Documents in Building Industry*, UNS, CSTB, Nhan Le Thanh, Catherine Faron-Zucker, Bruno Fies.
- Luca Costabello**, *Mobile Access to the Web of Data* Inria, UNS, Fabien Gandon, Ivan Herman;
- Papa Fary Diallo**, *Co-Construction of Community Ontologies and Corpus in a Limited Technological Environment*. Inria, UGB, Isabelle Mirbel, Olivier Corby, Moussa Lo;
- Corentin Follenfant**, *Usage semantics of analytics and Business Intelligence tools*, UNS, SAP, Fabien Gandon, Olivier Corby, David Trastour;
- Rakebul Hasan**, *Explanations for Social Semantic Web*, UNS, Fabien Gandon;
- Maxime Lefrançois**, *Collaborative multilingual management of interlingual knowledge bases*, Inria, UNS, Fabien Gandon, Christian Boitet;
- Nicolas Marie**, *Pervasive sociality through social objects*, Alcatel Lucent Bell Labs, Fabien Gandon, Myriam Ribièvre;
- Oumy Seye**, *Rules for the Web of Data*, University Gaston Berger, Saint-Louis, Sénégal, Olivier Corby, Catherine Faron-Zucker, Moussa Lo;
- Imen Tayari**, *Representation, Annotation and Detection of Emotions in Multimodal Signals*, Sfax, UNS, Nhan Le Thanh and Chokri Ben Amar;
- Nguyen Thi Hoa Hue**, *Semantic Mappings with a Dataflow-based scientific workflow : an approach to develop dataflow applications using knowledge-based systems*, Vietnam, Nhan Le Thanh;

### 9.2.3. Juries

Fabien Gandon was jury member of

HdR:

Talel Abdessalem, *Complex data management: spatio-temporal data, XML and the Web*, Télécom ParisTech, January 4th, (Reviewer).

PhD Thesis:

Antoine Seilles, *Structuration de débats en ligne à l'aide d'Annotations socio-sémantiques. Vers une analyse de réseaux sociaux centrés sur l'interaction*, January 25th, LIRMM, (Reviewer).

Benoit Mathern, *Découverte interactive de connaissances à partir de traces d'activité : Synthèse d'automates pour l'analyse et la modélisation de l'activité de conduite automobile*, March 12th, LIRIS, (Reviewer).

David Rouquet, *Multilinguisation d'ontologies dans le cadre de la recherche d'information translingue dans des collections d'images accompagnées de textes spontanés*, IMAG, April 6th, (Examiner).

Damien Leprovost, *Découverte et analyse des communautés implicites par une approche sémantique en ligne : l'outil WebTribe*, LE2I Université de Bourgogne, November 30th, (Examiner).

Milan Stankovic, *Web Social Sémantique: Applications dans l'innovation sur le Web*, December 7th, university Paris-Sorbonne (Reviewer).

Alice Hermann, *Création et mise à jour guidée d'objets dans une base de connaissances*, December 17th, IRISA INSA Rennes, (Examiner).

### 9.2.4. Invited Talks

**Michel Buffa:**

*HTML5 for audio applications*, invited talk for the "Le Web des fonctions" conference, organized by the "Centre de Création Musicale" GRAME, Lyon, France, June 27th.

*Social Network Analysis and Semantic Web*, invited talk at the Summer School about "Knowledge Dynamics, Industry Evolution, Economic Development", organized by GREDEG (UNS and CNRS), July 9-13th, Nice.

#### **Elena Cabrio & Serena Villata**

*Natural Language Arguments: A Combined Approach*, invited talk at the 12th International Workshop On Computational Models of Natural Argument (CMNA 12), co-located with ECAI 2012, Montpellier, France, August.

*Natural Language Arguments: Results and Challenges*, invited talk at University of Liverpool - Department of Computer Science, December 12th,

#### **Olivier Corby:**

Invited Speaker at RISE Workshop (Recherche d'Information Sémantique) held at EGC, Bordeaux, January 31st: *Un peu de (Web) sémantique pour la recherche d'information*.

Invited Speaker at Xerox Research Center, Grenoble, May 29th: *Corese Semantic Web Factory*.

#### **Fabien Gandon:**

Conference SIIE<sup>27</sup>, *Semantic and Social Intraweb for Corporate Intelligence and Watch*. February 18th.

Séminaire D'Alembert<sup>28</sup>, *Web sémantique et social : nouvelles pratiques de recherche et circulation des savoirs sur le Web 3.0*, March 14th.

SophiaConf<sup>29</sup>, *DataLift: Un catalyseur pour le Web de données*, July 4th.

Ercim ABCDE, *Wimmics research presentation*, October 25th.

Journées de la Recherche IGN, *Web sémantique et Web social: deux étapes vers les données liées d'un Web ubiquitaire*, March 9th.

IST Seminar<sup>30</sup>, *L'avenir du Web au prisme de la ressource*, September 30th-October 5th.

#### **Alain Giboin:**

*The culture of sharing in social medias (networks): How do computer scientists and usage analysts reconcile their views to design user-adapted social medias?* - Interdisciplinary seminar *Culture, numérique & culture numérique*, CERI, Avignon, April 5.

This seminar included another invited talk - *Le numérique et l'humain* - given by Claude Kirchner, Délégué général à la recherche et au transfert pour l'innovation (Inria).

### **9.3. Popularization**

#### **Fabien Gandon**

ENS Lyon Visit, Wimmics researchs presentation, November 8th.

Inria Industrie Finance meeting<sup>31</sup>, April 3rd.

Scientific mediation séminaire (SMS), January 23rd.

Textes et documents pour la classe (TDC 1042 "Internet"), *Web : tout est lié*.

Lycée Audiberti, Antibes, *Les quatre aveugles et l'éléphant Web*, May 10th.

Aniversary SAER, *Les labyrinthes du Web*, June 12th.

#### **Michel Buffa & Maxime Lefrançois**

Participation to *Fête de la science*, October 10th-14th.

<sup>27</sup> <http://siie2012.loria.fr>

<sup>28</sup> <http://www.centre-dalembert.u-psud.fr/#S4>

<sup>29</sup> <http://www.sophiaconf.fr>

<sup>30</sup> <http://www.inria.fr/ist2012>

<sup>31</sup> <http://www.inria.fr/centre/saclay/innovation/rii-finance/programme>

## **ZENITH Project-Team**

# **9. Dissemination**

## **9.1. Scientific Animation**

Participation in the editorial board of scientific journals:

- VLDB Journal: P. Valduriez.
- Proceedings of the VLDB Endowment (PVLDB): E. Pacitti.
- Distributed and Parallel Databases, Kluwer Academic Publishers: P. Valduriez.
- Internet and Databases: Web Information Systems, Kluwer Academic Publishers: P. Valduriez.
- Journal of Information and Data Management, Brazilian Computer Society Special Interest Group on Databases: P. Valduriez.
- Book series “Data Centric Systems and Applications” (Springer-Verlag): P. Valduriez.
- Ingénierie des Systèmes d’Information, Hermès : P. Valduriez.

Participation in conference program committees :

- Int. Conf. on VLDB 2012: E. Pacitti
- Int. Conf. on Extending DataBase Technologies (EDBT): Z. Bellahsène, E. Pacitti, 2012, 2013
- Int. Conf. on Information and Knowledge Management (CIKM) 2012: E. Pacitti
- IEEE Int. Conf. on Data Engineering (ICDE) 2012: Z. Bellahsène
- Int. Conf. on Middleware 2012: E. Pacitti
- Journées Bases de Données Avancées (BDA), 2012: R. Akbarinia, Z. Bellahsène
- Int. Workshop on Open Data, 2012: P. Valduriez
- ACM Int. Conf. on Multimedia Retrieval 2012: Alexis Joly
- CLEF-labs 2012, 2013: Alexis Joly
- Int. Conf. on Multimedia Modeling 2013: Alexis Joly
- Int. Conf. on Cooperative Information systems (CoopIS): Z. Bellahsène, 2012
- Int. Conf. on Advanced Information Systems Engineering (CAiSE) : Z. Bellahsène, 2012, 2013
- European Semantic Web Conference (ESWC) 2012: Z. Bellahsène
- ACM Symposium On Applied Computing (ACM SAC, data stream track), 2012: F. Masseglia
- Int. Conf. on Advances in Databases, Knowledge, and Data Applications (DBKDA), 2012: F. Masseglia
- Conférence Internationale Francophone sur l’Extraction et la Gestion de Connaissance (EGC), 2012: F. Masseglia
- IEEE Int. Conf. on Data Mining (ICDM), 2012: F. Masseglia
- Int. Conf. on Artificial Intelligence in Medicine (LEMEDS@AIME), 2011: F. Masseglia
- Int. Workshop on Multimedia Data Mining (MDM@KDD), 2011: F. Masseglia
- Int. Pacific-Asia Conf. on Knowledge Discovery and Data Mining (PAKDD), 2012: F. Masseglia
- IEEE Int. Conf. on Advanced Information Networking and Applications (AINA) 2012: H. Bouziane
- Rencontres Francophones sur les Aspects Algorithmiques de Telecommunications (AlgoTel), 2012: H. Bouziane
- IEEE Int. Parallel and Distributed Processing Symposium (IPDPS) 2013: H. Bouziane

Other activities (national):

- The members of Zenith have always been strongly involved in organizing the French database research community, in the context of the I3 GDR and the BDA conference.
- Esther Pacitti organized a workshop on bigdata and life science in the context of the Mastodons project in Montpellier (<http://www.lirmm.fr/~pacitti/Mastodons.html>).
- Patrick Valduriez gave a talk on “Open Data Integration with WebSmatch” at SophiaConf2012, organized by Telecom Valley in Sophia-Antipolis. He also chaired the ModSiCS2020 workshop on Data, Models and Theories for Complex Systems: new challenges and opportunities, organized by UM2 in march.

Other activities (international):

- Since 2011, Alexis Joly organizes a system-oriented evaluation initiative dedicated to plant's identification in the context of the CLEF evaluation forum <http://clef2012.org/>. This initiative is the first one dealing with the evaluation of content-based technologies in the context of ecological data. Finally, he chaired a panel on "Scientific Multimedia Data" at the 10th international workshop on Content-Based Multimedia Indexing (CBMI2012). He also chaired a session on "Search in Large-Scale Multimedia Data" at the International Workshop on Search Computing (sponsored by the EU commission).
- Patrick Valduriez chaired a panel on “Big Data: Scientific and Societal Challenges” at the Berkeley Inria Stanford (BIS2012) workshop in June.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

Licence : Enseignant, titre du cours, nombre d'heures en équivalent TD, niveau (L1, L2, L3), université, pays

Master : Enseignant, titre du cours, nombre d'heures en équivalent TD, niveau (M1, M2), université, pays

Doctorat : Enseignant, titre du cours, nombre d'heures en équivalent TD, université, pays

Most permanent members of Zenith teach at the Licence and Master degree levels at UM2.

Reza Akbarinia:

Master Research: Data sharing in P2P, 9h, level M2, Faculty of Science, UM2

Master : Distributed Data Management, 9h, level M1, Faculty of Science, UM2

Licence Pro: JavaScript/jQuery, 10h, level L3, IUT, UM2

Licence: Computer Tools, 36h, level L2, Faculty of Science, UM2

Zohra Bellahsène:

IUT 1: Relational Databases , 100h, level L1, IUT, UM2

IUT 2: Object-relational Databases, 60h, Level L2, IUT, UM2

Master Computer Science : Data Integration, 15h, level M2, Faculty of Science, UM2

Hinde Bouziane:

Licence: Networks, 36h, level L3, Faculty of Science, UM2

Master DECOL: Networks and communication, 90h, level M1, Faculty of Science, UM2

Master DECOL: Distributed Data Management, 6h, level M1, Faculty of Science, UM2

Master IPS: Introduction to operating systems and networks, 36h, level M1, Faculty of Science, UM2

Master Research DECOL: Data sharing in P2P, 15h, level M2, Faculty of Science, UM2

Esther Pacitti:

- IG3: Database design, physical organization, 54h, level L3, Polytech' Montpellier, UM2
- IG4: Networks, 42h, level M1, Polytech' Montpellier, UM2
- IG4: Object-relational databases, 32h, level M1, Polytech' Montpellier, UM2
- IG5: Distributed systems, virtualization, 27h, level M2, Polytech' Montpellier, UM2
- Master Research: Data sharing in P2P, 4,5h, level M2, Faculty of Science, UM2

Didier Parigot:

- Master Research: Data sharing in P2P, 9h, level M2, Faculty of Science, UM2

Patrick Valduriez:

- Master Research: Data sharing in P2P, 13h, level M2, Faculty of Science, UM2
- Professional: Distributed Information Systems, 55h, level M2, Capgemini Institut
- Professional: XML, 40h, level M2, Orsys Formation

### **9.2.2. Supervision**

- PhD: Vincenzo Gulisano, StreamCloud: An Elastic Parallel-Distributed Stream Processing Engine, 20 dec. 2012, Univ. Madrid, Advisors: Ricardo Jiménez Peris, Patrick Valduriez
- PhD: Ayoub Ait-lahcen, Developing component-based applications with a data-centric approach and within a service-oriented P2P architecture: specification, analysis and middleware, 15 dec. 2012, Univ. Mohammed V Rabat and Univ. Nice, Advisors: Driss Aboutajdine and Didier Parigot
- PhD: Duy Hoa Ngo, A generic approach to ontology matching, 14 dec. 2012, UM2, Advisor: Zohra Bellahsène, co-advisor: Rémi Coletta
- PhD: Imen Mami, Une approche déclarative pour la modélisation et la résolution du problème de la sélection de vues à matérialiser, 15 nov. 2012, UM2, Advisor: Zohra Bellahsène, co-advisor: Rémi Coletta
- PhD: Toufik Sarni, Real-time support for software transactional memory in multicore systems, 16 oct. 2012, Univ. Nantes, Advisor: Patrick Valduriez, co-advisor: Audrey Queudet
- PhD in progress: Yoann Couilloc, Langages de programmation et données ouvertes, started oct. 2012, Univ. Nice Sophia-Antipolis, Advisors: Manuel Serrano and Patrick Valduriez
- PhD in progress: Jonas Dias, Interactive Workflows for Data-Centric Experiments, started nov. 2011, Universidade Federal de Rio de Janeiro, Brazil, Advisors: Marta Mattoso and Patrick Valduriez
- PhD in progress : Pierre Letessier, Frequent Visual Objects Discovery in Multimedia Collections, started nov. 2009, Telecom ParisTech, Advisor: Nozha Boujemaa, co-advisors: Olivier Buisson and Alexis Joly
- PhD in progress : Miguel Liroz, Massive Data Management for Scientific Applications, started oct. 2010, UM2, Advisors: Esther Pacitti and Patrick Valduriez, co-advisor: Reza Akbarinia
- PhD in progress : Saber Salah, Optimizing a Cloud for Data Mining Primitives, started nov. 2012, UM2, Advisors: Florent Masseglia, co-advisor: Reza Akbarinia
- PhD in progress : Maximilien Servajean, Decentralized and Personalized Recommendation Protocols for Content Sharing: application to phenotyping, started oct. 2011, UM2, Advisor: Esther Pacitti, co-advisor: Pascal Neveu
- PhD in progress : Naser Ayat, Uncertain Data Integration, started sept. 2010, University of Amsterdam, Netherlands, Advisors: Hamideh Afsarmanesh and Patrick Valduriez, co-advisor: Reza Akbarinia

### **9.2.3. Juries**

Members of the team participated to the following Ph.D. committees: R. Akbarinia: Asma Souihli (TELECOM ParisTech); Z. Bellahsène: Imen Mami (UM2), Duy Hoa Ngo (UM2); F. Masseglia: Pierre-Nicolas Mougel (Univ. Lyon); E. Pacitti: Fady Draidi (UM2), Hien Truong (Univ. Nancy); D. Parigot: Ayoub Ait Lahcen (Univ. Rabat, Univ. Nice); P. Valduriez: Fady Draidi (UM2), Toufiq Sarni (Univ. Nantes), Vincenzo Gulisano (Univ. Madrid).

E. Pacitti participated to the PES (Prime d'Excellence Scientifique) committee of the CNU (Conseil National des Universités).

### **9.3. Popularization**

ZENITH has animated Inria's booth during 3 days at WWW 2012 conference in Lyon through demos of PI@ntNet tools <http://www.inria.fr/actualite/actualites-inria/inria-a-www2012>.

Several movies were realized in collaboration with INA in order to disseminate the results of the French ANR project OTMedia <http://www.inria.fr/actualite/actualites-inria/inria-a-www2012>. One of the movie was used as a visual support for an oral presentation of Alexis Joly at ACM Multimedia 2012 in the context of our participation to the Multimedia Grand Challenge <http://www.acmmm12.org/>.

## COPRIN Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

### 9.1.1. International activities

We will not detail the reviewing process done in the project but it can be estimated that over 20 journal papers and 50 conference papers were reviewed by the team this year.

- Julien Alexandre dit Sandretto was invited in the Department of Mechanical Engineering in the University of Melbourne where he mainly worked on the muscle parameter identification using the analogy between muscles and cables with a novel workspace satisfaction method.
- D. Daney has organized and has been a member program committee of IROS 2012 workshop on Assistance and Service Robotics in a Human Environment and an associate editor of ICRA 2013. He has presented the activity of the large scale initiative action PAL to the university of Athens, Athens, Greece, and to the National Taiwan University, Taipei, Taiwan.
- J-P. Merlet is a member of the scientific committee of the European Conference on Mechanism Science (EUCOMES), chairman of the scientific Committee of the Computational Kinematics workshop, a member of the steering Committee of IROS and board member of the Journal of Behavioral Robotics. He is also a board member of the european robotics network EURON which has joined with the industrial robotics network EUROP to constitute the PPP Eurobotics aisbl, of which he is a board member. He is a member of the IFToMM (International Federation for the Promotion of Mechanism and Machine Science) Technical Committees on History and on Computational Kinematics and is one of the 10 members of IFToMM Executive Council, the board of this federation.
- Y. Papegay is a permanent member of the International Steering Committee of the International Mathematica Symposium conferences serie.

### 9.1.2. National activities

- D. Daney is a member of the scientific committee of the CNR SDA (Centre National de Référence Santé à Domicile et Autonomie) and of the evaluation committee of the ANR TecSan. He has presented the large scale initiative action PAL to the "Centre National de Référence, Santé à Domicile + Autonomie", Paris, the "Pôle service à la personne" PACA, Marseille, the Centre Expertise National Habitat et Logement, Troyes.
- J-P. Merlet is a member of the scientific committee of the CNRS GDR robotique

#### 9.1.2.1. Inria activities

- D. Daney is coordinator of the Large Scale Initiative Personally Assisting Living (PAL)
- J-P. Merlet is a member of the "Bureau du Comité des Projets" of the Sophia-Antipolis Inria center.
- O. Pourtallier is a member of the CSD (doctoral students monitoring), and is responsible of the NICE committee (long term invited scientists and post-doctoral student selection).

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

D. Daney gave a lecture on industrial control systems (L3), ITII, Polytech Nice (48h ETP).

D. Daney gave a lecture on medical robotics, Master of Bio-Medical (M2), Univ. Nice Sophia Antipolis (22h ETP).

T. Gayral gave practicals on mechanics (kinematics, dynamics and energy), Polytech'Nice (64h ETP).

J-P. Merlet gave a 8h lecture during the Summer School on Models and Methods in Kinematics and Robotics 2012 (01 July – 08 July 2012) at the Technical University of Cluj-Napoca, Romania.

J-P. Merlet gave a 3h lecture at the Collège de France during the colloque Robotique et Santé on May 2.

O. Pourtallier lectured 30 hours on mathematical tools for engineer for undergraduate students (L1) at university of Nice.

O. Pourtallier lectured 6 hours on game theory to Master OSE (M2), at École des Mines de Paris, Sophia Antipolis

### 9.2.2. Supervision

HdR: Y. Papegay, De la modélisation littérale à la simulation certifiée, Université de Nice Sophia-Antipolis, June 2012

PhD: S. Bennour, Contribution au Développement d'une Plateforme Robotisée pour la Rééducation Fonctionnelle, Ecole Nationale d'Ingénieurs de Monastir, February 2012

Phd: M. Harshe, Analyse et conception d'un système de rééducation de membres inférieurs reposant sur un robot parallèle à câbles, Université de Nice, December 2012

PhD in progress : J. Alexandre dit Sandretto, Calibration of large parallel robots, 2010-2013, supervisors: D. Daney, G. Trombettoni

PhD in progress :K. Bakal, Indices biomécaniques globaux de capacité de génération de forces, supervisor: P. Gorce (Handibio), J-P. Merlet

PhD in progress :L. Blanchet, Design of large scale wire-driven parallel robots, 2012-2016, supervisor: J-P. Merlet supervisors: D. Daney, J-P. Merlet

PhD in progress :T. Gayral, Calibration of parallel telescope, 2010-2013, supervisors: D. Daney, J-P. Merlet

PhD in progress : H. Qu, Optimization of parallel robots, 2009-2012, supervisor: J-P. Merlet

PhD in progress : R. Ramadour, Manipulation for assistance, 2011-2014, supervisors: F. Chaumette, J-P. Merlet

### 9.2.3. Juries

- J-P. Merlet has been the member of the jury of 2 PhD defense and of one HdR

## 9.3. Popularization

- Julien Alexandre dit Sandretto has completed the construction of two small cable-driven robots in order to propose demonstration and lecture for students. The largest robot was presented during the french event "Fête de la science", during October, to four classes (second grade and first grade of high school). The subject of this speech was the High school Mathematics in the robotics. He gave a lecture on fundamental robotics in the Pobot club, and achieved the construction of a Delta parallel manipulator
- J-P. Merlet has completed the construction of one pedagogic wire-driven parallel robot. This robot, together with the robots developed by Julien Alexandre dit Sandretto, are tools that are intended to demonstrate basic concepts of several scientific domains (mathematics, networks, robotics, mechanics, ...) by researchers (not only roboticists) for a large variety of audience
- 180 visitors have attended this year a demonstration by the project team. This has led, for example, to articles in the newspapers Le Monde, Le Figaro, Les Echos, Le Quotidien du Médecin and interviews on RFI, France Culture and France Inter.

## E-MOTION Project-Team

# 7. Dissemination

## 7.1. Animation of the scientific community

### 7.1.1. conferences and workshops

- C. Laugier organised a workshop on intelligent vehicles during IROS'12.
- C. Laugier was program chair of IEEE/RSJ IROS 2012 conference in Vilamoura (Portugal, oct. 2012).
- C. Laugier co-organised workshop at the IEEE/RSJ IROS 2012 conference in Vilamoura (Portugal, oct. 2012).
- A. Spalanzani organised a workshop on Assistance and Service robotics in a human environment during IROS'12.
- C. Laugier was member of the conference editorial Board and member of the Program Committee of the IEEE ICRA 2012 conference (Minneapolis, may 2012).
- A. Spalanzani was associate editor of the Ro-Man 2012 conference.
- A. Martinelli was Associate Editor at ICRA 2012.
- C. Laugier co-organized with Philippe Martinet a workshop on intelligent vehicles during IEEE/RSJ IROS'12 in Algarve (Portugal).
- A. Spalanzani co-organized with D. Daney, JP Merlet and O. Simonin a workshop on Assistance and Service robotics in a human environment during IEEE/RSJ IROS'12 in Algarve (Portugal).
- C. Laugier has been appointed as program co-chair at the IEEE/RSJ IROS 2012 conference(Algarve, Portugal).
- C. Laugier is co-chair of the IEEE RAS Technical Committee on "Autonomous Ground Vehicles and Intelligent Transportation Systems". He co-organized in this scope several scientific events in 2012 (workshops, special sessions of International conferences, a journal special issue in "Robotics and Automation Magazine" to be published in 2013). - C. laugier was Associate Editor for the part "Fully Autonomous Driving" of the Springer "Handbook on Intelligent Vehicles" published in March 2012.
- C. Laugier has been invited as an Associated Editor (with A. Zelinsky, A. Broggi and U. Ozgüner) for chapter "Intelligent Vehicles" of the 2nd edition of the Springer "Handbook of Robotics" to be published in 2013-14.
- A. Spalanzani co-organised a workshop at the IEEE/RSJ IROS 2012 conference in Vilamoura (Portugal, oct. 2012).
- C. Laugier was member of the conference editorial Board and member of the Program Committee of the IEEE ICRA 2012 conference (Minneapolis, may 2012)
- C. Laugier was program chair of IEEE/RSJ IROS 2012 conference in Vilamoura (Portugal, oct. 2012)
- C. Laugier co-organised workshop at the IEEE/RSJ IROS 2012 conference in Vilamoura (Portugal, oct. 2012).
- C. Laugier was a member of the program committee of the FSR 2012 conference (Japan, march 2012)

### 7.1.2. invited talks

- C. Laugier has given a seminar entitled "Autonomous Mobility in Human Environments" at the University of Tokyo on March 2012.
- C. Laugier has given an invited talk entitled "Situation Awareness and Collision Risk Assessment: Application to Autonomous Vehicles in Open Dynamic Environments" at the Workshop on Field and Service Robotics in Sendai on March 2012.
- C. Laugier and S. Lefevre have given an invited talk entitled "Embedded Perception and Situation Awareness for improving Driving Safety" at the 2nd Workshop Berkeley-Inria-Stanford in Paris on May 2012.
- C. Laugier has given an invited talk entitled "Human Centered Robotics and Mobility" at the NTU-IRiCE Workshop on Robotics and Automation in Taipei on May 2012.

### 7.1.3. others

- A. Spalanzani, M. Perrollaz, P Stein, A. Escobedo, J. Rios and C. Laugier have presented the robotic wheelchair at the innorobo 2012 fair, march 2012.
- C. laugier participated as panelist expert to the large public event “Talents de Rhône-Alpes: Homme/Robot qui aura la main?” in Lyon on December 18th 2012.
- F. Breton and C. laugier have published a vulgarization article entitled “Les robots apparaissent dans l'espace de vie des humains”, October 2012.
- A. Martinelli was reviewer of the PhD thesis of Stephan Weiss at ETHZ in March 2012.
- A. Spalanzani and C. Laugier participated to the organization of the French-Mexican summer school on robotics and vision (SSIR’12) in Ensenada (Mexico).
- M. Perrollaz made a talk at the "Fête de la science", oct 2012.

## 7.2. Teaching

- Master MOSIG: “autonomous Robotics”, C. Laugier (responsible), A. Martinelli, M. Perrollaz, A. Nègre, 24h, M2, MOSIG-INP, France.
- Master CNAM: “Basic technologies for autonomous Robotics”, C. Laugier, CNAM, France.
- Doctorat (école d'été): “autonomous Robotics”, C. Laugier, 6h, SSIR’12, Ensenada, June 2012, Mexico.
- Ecole d'Ingénieur : “Programmation structurée en C”, M. Perrollaz, 36h, L3, Phelma, Grenoble-INP, France.

PhD & HdR :

- PhD in progress: Chiara Troiani, vision and inertial sensor fusion for 3D navigation, 2011, A. Martinelli.
- PhD in progress: Jorge Rios-Martinez, Comfortable navigation using social conventions, 2009, A. Spalanzani.
- PhD in progress: Arturo Escobedo, Shared Control navigation, 2011, A. Spalanzani.
- PhD in progress: Raphael Laurent, Bayesian modelling to implement and compare different theories of speech communication, 2011, P. Bessière.
- PhD in progress: Stéphanie Lefèvre, context-aware bayesian filtering for collision prediction at roads intersections, defended in 2012, C. Laugier
- PhD in progress: Gabriel Synnaeve, Bayesian programming applied to a multi-player video games, defended in 2012, P. Bessière.
- PhD in progress: Alessandro Renzaglia, 3D coverage by using stochastic approach, defended in 2012, A. Martinelli.

## FLOWERS Project-Team

# 9. Dissemination

## 9.1. Animation of the Scientific Community

### 9.1.1. Editorial boards

Pierre-Yves Oudeyer has worked as Editor of the IEEE CIS AMD Newsletter, and member of the IEEE CIS Technical Committee on Autonomous Mental Development.

Pierre-Yves Oudeyer has worked as Associate Editor for IEEE Transactions on Autonomous Mental Development, Frontiers in Neurorobotics (Frontiers Foundation), International Journal of Social Robotics (Springer).

Pierre-Yves Oudeyer has worked as member of the editorial board of the book series Advances in Interaction Studies, John Benjamins Publishing Company.

### 9.1.2. Steering committees

Pierre-Yves Oudeyer has worked as member of the Steering Committee of the International Conference on Epigenetic Robotics, and participated to the setting up of the second joint conference with IEEE ICDL, i.e. the IEEE ICDL/Epirob conference that was held in San Diego, US.

Manuel Lopes participated in the steering committee of the IEEE TC on Robot Learning.

### 9.1.3. Conference Organization

Pierre-Yves Oudeyer co-organized the third International Workshop on Human Behavior Understanding, and was co-editor of the proceedings [67], [59]: <http://www.cmpe.boun.edu.tr/hbu/2012/> (together with A. A. Salah, Cetin Mericli and Javier Ruiz-del-Solar).

### 9.1.4. Program Committees

Freek Stulp was on the program committee of the IEEE International Conference on Development and Learning/Epigenetic Robotics.

Pierre-Yves Oudeyer was a member of the following program committees: IEEE ICDL-EPIROB 2012; IEEE RAS International Conference on Humanoid Robots (HUMANOIDS); 3rd International Workshop on Human-Behaviour Understanding (HBU).

Manuel Lopes was on the program committee of STAIRS/ECAI, AAAI, Inter. Conf. on Autonomous Robot Systems and Competitions and European Workshop on Reinforcement Learning (EWRL).

### 9.1.5. Journal Reviews

David Filliat reviewed papers for the journals: Autonomous Robots, Robotics and Autonomous Systems and Journal of Visual Communication and Image Representation.

Freek Stulp reviewed papers for the journals: IEEE Transactions on Robotics, Transactions on Mechatronics, IEEE Transactions on Control Systems Technology.

Pierre-Yves Oudeyer reviewed papers for the journals: IEEE Transactions on Autonomous Mental Development, Neural Networks.

Manuel Lopes reviewed for the journals: IEEE Transactions on Robotics, IEEE Transactions on Autonomous Mental Development, Robotics and Autonomous Systems and Advanced Robotics.

Alexander Gepperth was a reviewer for the journals "Cognitive Computation", "Neural Processing Letters" and "Intelligent Transportation Systems".

Thomas Degris was a reviewer for the Neural Computation Journal and Revue d'Intelligence Artificielle.

### 9.1.6. Conference Reviews

Alexander Gepperth reviews articles for the International Conference on Neurally Inspired Processing (ICONIP) and the ACM/IEEE HRI conference.

Freek Stulp was reviewer for IEEE International Conference on Robotics and Automation (ICRA), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), IEEE International Conference on Development and Learning (ICDL-EpiRob), IEEE-RAS International Conference on Humanoid Robots (Humanoids), IEEE International Symposium on Robot and Human Interactive Communication (ROMAN). David Filliat was reviewer for IEEE International Conference on Robotics and Automation (ICRA), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Advanced Concepts for Intelligent Vision Systems (ACIVS), International Conference on Control, Automation, Robotics and Vision (ICARCV) and the 10th International IFAC Symposium on Robot Control (SYROCO).

Pierre-Yves Oudeyer was a reviewer for the conferences IEEE ICDL-EPIROB, Humanoids, ICRA.

Pierre Rouanet has reviewed papers for the IEEE 2012 ICRA conference, IEEE 2011 IROS conference and IEEE HRI 2011 workshop "Expectations in intuitive HRI".

Thomas Cederborg has reviewed one paper for the IROS 2012 conference, one paper for the ICDL-EpiRob 2012 conference and one paper for the HBU 2012 conference.

Jonathan Grizou has reviewed papers for the IEEE ICDL 2012 conference.

Sao Mai Nguyen has reviewed a paper for IROS 2012, ICDL 2012 and a workshop of IROS 2012.

Olivier Mangin has reviewed papers for the Humanoid 2012 conference, for the Human Behavior Understanding 2012 workshop, and for the ICRA 2013 conference.

Thomas Degris has reviewed papers for the ICDL Epirob 2012 conference.

### 9.1.7. PhD Jury

Pierre-Yves Oudeyer was rapporteur in the PhD jury of Matthias Rolf (Bielefeld University, Germany), for its PhD entitled "Goal babbling for an efficient bootstrapping of inverse models in high dimensions", as well as rapporteur in the PhD jury of Duong Dang (LAAS CNRS, France), for its PhD entitled "Manipulation et locomotion en robotique humanoïde avec optimisation en temps réel des pas", and also participated to the PhD jury of John Nassour (Univ. Versailles, France; and TUM, Germany), for its PhD entitled "Success-failure learning for humanoid: study on bipedal walking".

David Filliat was rapporteur in the PhD jury of Mathieu Dubois (Méthodes probabilistes basées sur les mots visuels pour la reconnaissance de lieux par un robot mobile, 20/02/12), of Thomas Moulard (Optimisation numérique pour la robotique et exécution de trajectoires référencées capteurs, 17/09/12), of Fengchun Dong (Vision sensor design and evaluation for autonomous navigation, 22/11/12), of Ahmad Mohammed Hasasneh (Robot semantic place recognition based on deep belief networks and a direct use of tiny images, 23/11/12) and participated in the jury of Pierre Rouanet (Apprendre à un robot à reconnaître des objets visuels nouveaux et à les associer à des mots nouveaux : le rôle de l'interface, 04/03/12).

Manuel Lopes acted as member of the advising committee for the PhD thesis of: Pedro Sequeira entitled "Biologically-inspired Mechanisms to Enhance Learning in Autonomous Agents", Instituto Superior Técnico, Lisbon, Portugal, and Salomon Ramire entitled "Active Vision in the Peripersonal Space for Humanoid Robots", University of Plymouth, England.

Alexander Gepperth is/will be rapporteur in the PhD jury of Michael Garcia Ortiz, for his PhD entitled "Driver Behavior Prediction in intelligent vehicles", to be submitted to the university of Bielefeld, Germany in January 2013.

### 9.1.8. Expertise

David Filliat reviewed projects for the 'Programme Evaluation-orientation de la Coopération Scientifique (ECOS)'.

Pierre-Yves Oudeyer was expert for the European Commission for review and evaluations of several FP7 projects and calls (ICT and FET). He was also reviewer for ANR projects', and was a member of Commission de Développement Technologique, Inria Bordeaux Sud-Ouest.

Manuel Lopes participated in the Cost-Gtri: Groupe de travail des relations internationales du comité d'orientation scientifique et technologique.

Thomas Degris reviewed a project proposal in Reinforcement Learning for the The Netherlands Organisation for Scientific Research (NWO).

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

License: Introduction à Matlab, 21 heures. L3 - ENSTA ParisTech (Alexander Gepperth)

License: Traitement numérique du signal , 21 heures. L3 - ENSTA ParisTech (Alexander Gepperth)

Master : Robotique de Comnpagnie, 12 heures. M2, ENSTA - Paris Tech (Manuel Lopes).

Master : Robotique Mobile, 24 heures. M2, ENSTA - ParisTech (David Filliat).

Master : Vision pour la robotique, 12 heures. M2, University Pierre et Marie Curie (David Filliat).

License : Introduction to Matlab, 21 heures. L3, ENSTA - ParisTech (David Filliat).

License : Projet informatique, 21 heures. L3, ENSTA - ParisTech (David Filliat).

Licence 2 : Graphe, Langage, Cryptologie, 21 heures. Pôle Universitaire Français de Ho Chi Minh Ville

Master : Option Robotique, Projet Robot Autonome, 32 heures. ENSEIRB, Bordeaux, France.

Licence : Mathématique, 64 heures, niveau (L2), Pôle Universitaire Français, Ho Chi Minh ville (Olivier Mangin)

Licence : Programmation système, 30 heures, niveau (L2), Pôle Universitaire Français, Ho Chi Minh ville (Olivier Mangin)

### 9.2.2. Supervision

PhD & HdR :

HdR: Pierre-Yves Oudeyer defended his HdR, entitled “Developmental constraints on the evolution and acquisition of sensorimotor and social skills”, at University of Bordeaux, 18 May, 2011.

HdR : David Filliat, Navigation, Perception et Apprentissage pour la robotique, University Pierre et Marie Curie, 12 Juillet 2011.

PhD defended by Pierre Rouanet ([21]), “Apprendre à un robot à reconnaître des objets visuels nouveaux et à les associer à des mots nouveaux : le rôle de l’interface”, at University Bordeaux I, march 2012 (superv. Pierre-Yves Oudeyer).

PhD in progress : Louis-Charles Caron, Developmental learning in multimodal sensory-motor loops, started january 2012 (superv. Alexander Gepperth).

PhD in progress : Natalia Lyubova, A developmental approach to perception for a humanoid robot, started nov 2010 (superv. David Filliat).

PhD in progress : Matthieu Lapeyre, Developmental constraints for biped humanoid walking, started oct. 2010 (superv. Pierre-Yves Oudeyer and Olivier Ly).

PhD in progress : Mai Nguyen, Bootstrapping Intrinsically Motivated Learning with Human Demonstration, started oct. 2010 (superv. Pierre-Yves Oudeyer).

PhD in progress : Fabien Bénureau, Cumulative, hierarchical and intrinsically motivated learning of robot skills, started oct. 2010 (superv. Pierre-Yves Oudeyer).

PhD in progress : Jonathan Grizou, Fluid simultaneous learning of task and feedback models, started oct. 2011 (superv. Manuel Lopes and Pierre-Yves Oudeyer).

PhD in progress : Olivier Mangin, Learning of sensorimotor primitives with Non-Negative Matrix Factorization, started oct. 2010 (superv. Pierre-Yves Oudeyer).

PhD in progress : Thomas Cederborg, A unified view of context-dependant skill learning and language acquisition, started oct. 2009 (superv. Pierre-Yves Oudeyer).

Master internships and others:

- J. Grizou supervised the 6 month master 2 internship of Mathieu Duteil Master thesis project, coming from "Université Pierre et Marie Curie", where he studied Intelligent Systems and Robotics. The project consisted in detecting if humans provide non-verbal feedback during interactions with robots. Mathieu did several user studies to record the necessary data using several human-machine interaction protocols, recording the commands provided by the person, the sounds and the facial expressions. With this data he tested several kernel based methods to allow classifying the relevant feedback from the human.
- J. Grizou supervised two middle school students. The purpose of such one week internship is to allow pre high-school students to discover what being a researcher means as well as discovering some simple technological setup.
- F. Benureay supervised one middle school student, Victor Melançon, 16 years old, for one week internship. He worked on a visualization and control of the motion of robotic arm using a interface created during the internship using Processing. The goal was to elaborate an aesthetically pleasing visualization of the robot motion that would engage non-expert users in an interaction with the robot. The project was also the opportunity to learn the basics of programming and robot control.
- M. Nguyen supervised the internship of Thomas Huet (ENS Paris) for a 2 months internship entitled : "Learning Methods for Robotic Models in a Fishing Experiment".
- P-Y. Oudeyer supervised the 3 months master 1 internship of Sébastien Forestier (ENS Cachan). The project consisted in experimenting the SAGG-RIAC architecture on the Ergo-Robots, and it was shown to allow successful learning of inverse kinematics.

### 9.3. Invited talks

Pierre-Yves Oudeyer:

- (5th december 2012) *Developmental mechanisms for life-long autonomous learning in robots and humans*, FIAS Winter School on Intrinsic Motivation: From Brains to Robots, Frankfurt, Germany.
- (18th october 2012) Le rôle du corps en robotique développementale, Conférence "Corps et Robots", ARCO/IPac, Inria Nancy, France.
- (12th october 2012) *A Robotic Platform for Scalable Life-Long Learning Experiments*, IROS 2012 Workshop on Learning and Interaction in Haptic Robots, Vilamoura, Algarve, Portugal.
- (5th october 2012) *Developmental mechanisms for life-long autonomous learning*, INNS Symposium on Autonomous Learning, 2012 International Neural Network Society Winter Conference (INNS-WC2012).
- (6th september 2012) *The challenges of active exploration and learning in high-dimensional continuous spaces*, GdR CNRS Robotique et Neurosciences.
- (31st august 2012) *Developmental mechanisms for life-long autonomous learning in robots*, Frontiers of AI track, 20th European Conference on Artificial Intelligence (ECAI 2012).
- (6th july 2012) *Bootstrapping language development out of multimodal sub-symbolic sensorimotor learning in robots*, Symposium on Origins of Communication and Language, Epigenetic Modeling and Ethodological Observation, Konrad Lorenz Institute, Altenberg, Austria.
- (5th april 2012) *Developmental autonomous learning*, Séminaire du laboratoire L3i de l'Université de La Rochelle.
- (30th january 2012) *Les modèles robotiques: un nouveau langage pour comprendre le vivant*, Colloque "Mathématiques pour tous?", organisé par l'UNESCO en partenariat avec l'IHES et la Fondation Cartier pour l'Art Contemporain, UNESCO, Paris, France.
- (26th january 2012) *From the language Gavavai problem to the motor Gavagai problem: Modeling language acquisition as an instance of general multimodal context-dependant learning by imitation*, Workshop on Socio-Cognitive Mechanisms of Symbolic Communication, Tilburg University, Tilburg, The Netherlands.

Freek Stulp:

- (february 2012) Invited talk at a meeting of the EU IP project “HANDLE: Developmental pathway towards autonomy and dexterity in robot in-hand manipulation”. Benicassim, Spain. Title: *Motion Primitives and Direct Reinforcement Learning for Robot Manipulation*.
- (november 2012) Invited talk at “Journée Evolution Artificielle Thématique” in Paris, France. Title: *From Episodic Reinforcement Learning and Quantum Mechanics to Evolutionary Optimization*.

Manuel Lopes:

- (december 2012), *Active and Social Learning for Robots*, Bosch Research, Palo Alto, USA.
- (september 2012) *Autonomous Exploration Through Curiosity and Social Guidance*, Evo-Devo-Robo: Evolutionary Robotics and Developmental Robotics, GECCO, Philadelphia, USA.
- (july 2012) *Interactive Learning in Social Robots*, German-French Workshop: Perspectives on Cognitive Interaction and Technology, Bielefeld, Germany, 2012.
- (april 2012) *"Ces robots qui nous imitent"*, Unithé ou café, Bordeaux.

Thomas Degris:

- (march 2012) *Off-policy Actor-critic: Algorithm and empirical evaluations*, 7th Workshop on Reinforcement Learning, Policy Approximation, Barbados.
- (march 2012) *Formalizing Curiosity, Social interaction and Maturation*, 7th Workshop on Reinforcement Learning, Policy Approximation, Barbados.

## 9.4. Popularization

### 9.4.1. Popular Science Articles

- Filliat, D. (2012) Vers une cartographie sémantique d'environnements intérieurs. Réalités Industrielles, Février 2012.
- Oudeyer, P-Y. (2012) GX-29 n'est pas un objet comme les autres, Sciences et Avenir Hors-Série, dec/jan 2011, "Qu'est-ce-que l'homme". <http://flowers.inria.fr/documents/SciencesEtAvenirDec2011.pdf>
- Oudeyer, P-Y. (2012) Les Robots Curieux, DocSciences 14, Alan Turing: La pensée informatique. <http://www.pyoudeyer.com/DocSciencesErgoRobots12.pdf>.
- Ly, O., Oudeyer, P-Y., Langlois, A. (2012) Le déséquilibre de l'apprentissage, Interstices. [http://interstices.info/jcms/int\\_68096/le-desequilibre-de-lapprentissage](http://interstices.info/jcms/int_68096/le-desequilibre-de-lapprentissage)

### 9.4.2. Popular Science Radio Broadcast

- France Culture (2012), interview of P-Y. Oudeyer, La robotique pour mieux comprendre l'homme, (Interview, 45 mn), Emission « Continent Sciences » de Stéphane Deligeorges. <http://www.franceculture.fr/emission-continent-sciences-pierre-yves-oudeyer-2012-01-16>
- France Info (2012), interview of P-Y. Oudeyer, Robotique et Sciences Cognitives (Interview, 5 minutes). <http://www.pyoudeyer.com/FranceInfo19Jan2012.mpg>
- RCF Aquitaine (october 2012) interview of Fabien Benureau. It allowed us to communicate on PhD work on autonomous intrinsic motivation algorithms done at our lab.

### 9.4.3. Popular Science Videos

- Ly, O., Oudeyer, P-Y., Langlois, A. (2012) Le déséquilibre de l'apprentissage, Inria (selected in category "hors-compétition" at Festival du Film de Chercheur à Nancy, to be used as support in schools). [http://interstices.info/jcms/int\\_68096/le-desequilibre-de-lapprentissage](http://interstices.info/jcms/int_68096/le-desequilibre-de-lapprentissage)
- Langlois, A., Oudeyer, P-Y. (2012) Alan Turing et la robotique développementale (interview of Pierre-Yves Oudeyer), Vidéothèque Inria. [http://www.pyoudeyer.com/turing\\_oudeyer\\_inria\\_2012.mp4](http://www.pyoudeyer.com/turing_oudeyer_inria_2012.mp4)

### 9.4.4. Popular Science Talks

- (4th august 2012) "Un robot peut-il apprendre comme un enfant?", Marathon des Sciences, Festival d'astronomie de Fleurance, Fleurance, France. <http://www.festival-astronomie.com/>

(30th january 2012), P-Y. Oudeyer: "Les modèles robotiques: un nouveau langage pour comprendre le vivant", Colloque "Mathématiques pour tous?", UNESCO, organisé par l'UNESCO en partenariat avec l'IHES et la Fondation Cartier pour l'Art Contemporain, UNESCO, Paris, France. <http://www.science.gouv.fr/fr/agenda/bdd/res/4374/colloque-mathematiques-pour-tous-/>

(14th december 2012), P-Y. Oudeyer, "Design et Auto-Design de Comportements et d'Interactions chez les Robots", Escales du Design, Bordeaux.

#### **9.4.5. Museum exhibitions, science festivals and general public demonstrations**

##### **9.4.5.1. Ergo-Robots, exhibition "Mathematics, a Beautiful Elsewhere" at Fondation Cartier pour l'Art Contemporain**

The FLOWERS team, in collaboration with University Bordeaux I/Labri, has participated as a central actor of the exhibition "Mathematics: A Beautiful Elsewhere" at Fondation Cartier pour l'Art Contemporain in Paris. This installation, called "Ergo-Robots/FLOWERS Fields" was made in collaboration with artist David Lynch and mathematician Mikhail Gromov (IHES, France), and shows computational models of curiosity-driven learning, human-robot interaction as well as self-organization of linguistic conventions. This exhibition, at the crossroads of science and art, allowed to disseminate our work towards the general public, explaining concepts related to learning mechanisms in humans and robots to a large audience (80000 visitors). This was also an opportunity for experimenting and improving our technologies for life-long robot learning experimentation. For one of the first times in the world outside the laboratory, we demonstrated how it is possible to achieve experimentation with learning robots quasi-continuously for 5 months. This opens novel stimulating scientific perspectives in the field of developmental robotics. This experimentation was presented through large audience radios, magazines and newspapers (France Inter, France Culture, RFI, Sciences et Avenir, Tangente, Financial Times, Daily Telegraph, Liberation, ...).

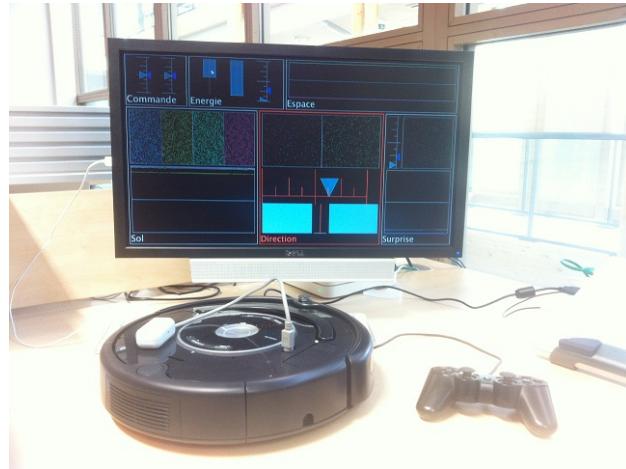
More information available at: <http://flowers.inria.fr/ergo-robots.php> and <http://fondation.cartier.com/>.



*Figure 30. The Ergo-Robot experiment: robot learning experiment running continuously for 5 months at Fondation Cartier pour l'Art Contemporain, exhibition "Mathématiques: Un Depaysement Soudain".*

#### 9.4.5.2. Cap Sciences exhibition on “Brain and Cognition”

Cap Sciences is an organization in Bordeaux to promote and to communicate about science to the public. Cap Sciences is preparing an exhibit about the brain starting in February 2013. The Flowers team will contribute to this exposition by setting up a booth to explain the complexity of the processing required for intelligent artificial systems (e.g. robots) to transform observations from the environment to actions done in this environment, such processing being done continuously by all living beings, most notably by nervous systems and brains. To explain this idea, the Flowers team is working on a game for the visitors of the exhibit: a player has to drive forward a mobile robot, specifically an iRobot Roomba, while avoiding obstacles. The difficulty for the visitor in this game is that the player is not able to watch the robot in its environment: the player has to control it using only the sensory-information displayed on a computer screen (see figure 31). The player wins when the robot has traveled a given distance in a straight line and in limited time without bumping into an obstacle. This exhibit will start in February 2013 and last for a year. After that, it may move to different locations. More than 100,000 visitors are expected in Cap Sciences, half of them will come from elementary schools. The data generated by the robot and the visitors will be logged and will be available for research on life long learning with robots.



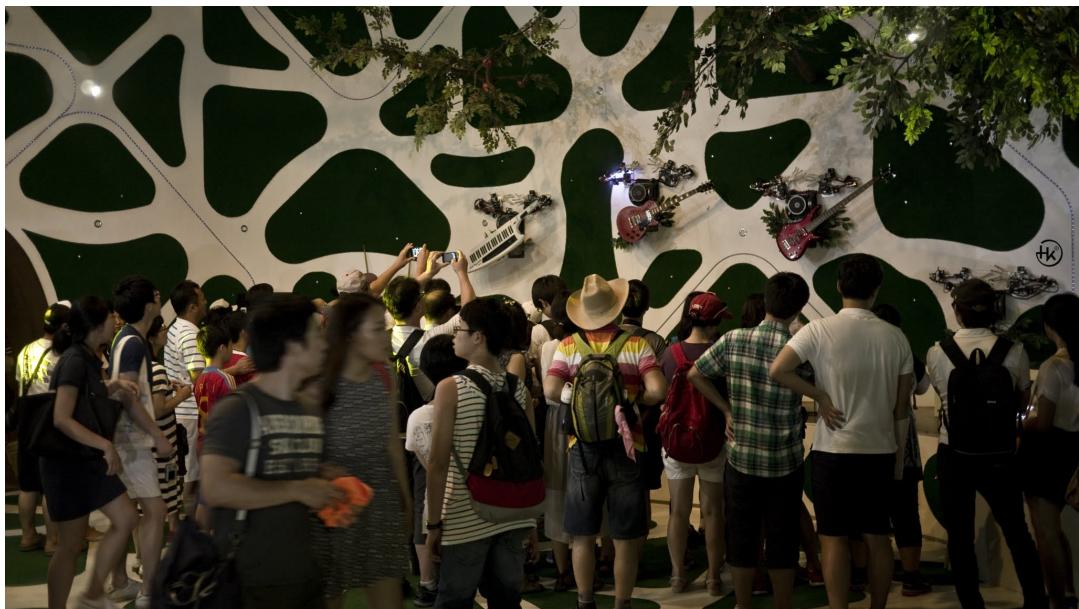
*Figure 31. Picture of the mobile robot with the computer screen displaying the sensori-motor information the visitor needs to use to control the robot using a joystick.*

#### 9.4.5.3. Robots at International Exposition held in Yeosu, South Korea

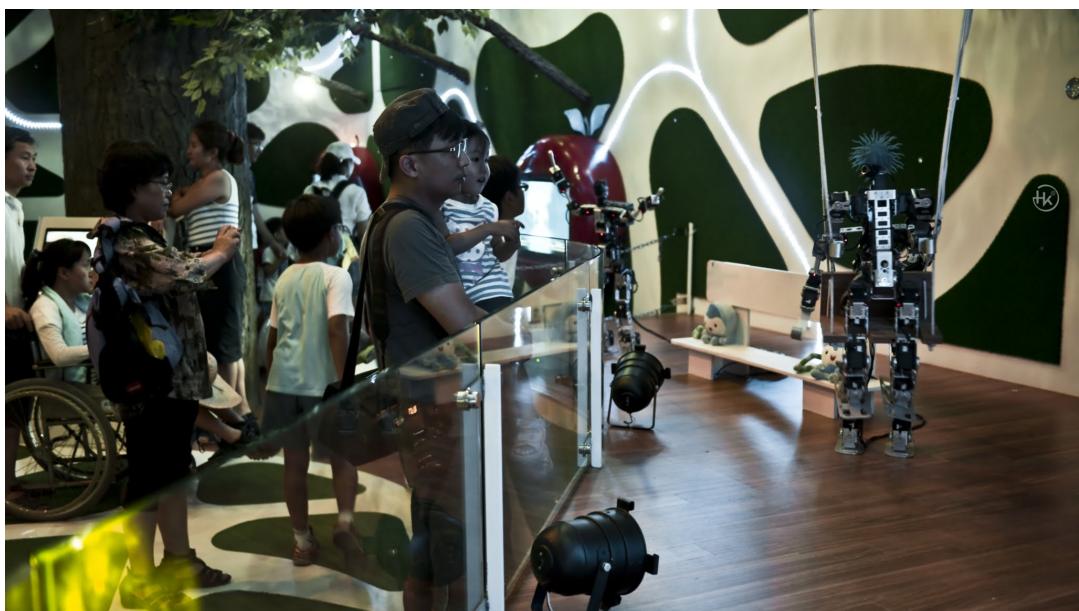
. In collaboration with Rhoban project/Labri/CNRS/Univ. Bordeaux I, the Flowers team participated to a project where several robots were elaborated and installed at the May 12, 2012 - August 12 2012 International Exposition held in Yeosu, South Korea (600k visitors). Exhibited robots were three humanoids (one dancing, two playing on a spring) and five musicians (arms only) playing musical instruments (electric guitar, electric bass guitar, keytar, drums, DJ turntables). Robots were installed inside the french ward, in a specific room named botanic garden. Humanoids were closed to the audience to allow interaction between people and robots (see Figure 33) while musicians robots were higher on a dedicated wall to increase visibility of the show (see Figure 32).

#### 9.4.5.4. Science Festivals:

- 13 october 2012 : Lab visit and robot demonstration for the 'Fete de la science' in the robotics lab at ENSTA ParisTech, Palaiseau.



*Figure 32. Exhibited musician robots on the wall of the french ward*



*Figure 33. Exhibited humanoid robots on the wall of the french ward*

- 9, 10 et 11 Février 2012: Aquitec exhibiton. Acquitec is an opportunity for high-school students to discover jobs and formations directly from the schools and institutes that exhibit there. We presented few robotic platforms. (Fabien Benureau and Jonathan Grizou)

#### **9.4.6. Press**

Web links to the following press items are available on <http://flowers.inria.fr/press.php>.

##### **9.4.6.1. TV**

Universcience TV, jan. 2012: "Art et maths".

France 2, Tele-matin, jan. 2012: "Les Maths: le 'probleme' des enfants".

France TV/Culturebox, jan. 2012: "Mathematiques: Un Depaysement Soudain" A la Fondation Cartier pour l'Art Contemporain.

##### **9.4.6.2. Radio**

France Info, 19 jan. 2012: "Robotique et sciences cognitives" (3mn).

France Culture, jan. 2012, Entretien sur le sujet "La robotique pour mieux comprendre l'homme" (45 mn), Emission Continent Sciences de Stephane Deligeorges. A propos du contexte scientifique dans lequel s'inscrit le projet Ergo-Robots.

##### **9.4.6.3. Magazines**

Jan 2012: Sciences et Avenir Hors-Serie, Numero Special "Qu'est-ce-que l'homme": "GX-29 n'est pas un objet comme les autres".

##### **9.4.6.4. Newspapers**

Sud-Ouest, march, 2012: "Les Etonnantes robots de la Fondation Cartier".

## IMARA Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

- An interdisciplinary workshop on inference, “[Information processing in complex systems with applications to traffic forecasting](#)” was organized on June 12, 2012 at Inria Paris-Rocquencourt. The intent was to bring together researchers from statistics, statistical mechanics and machine learning interested in the development of methods and algorithms to process data emerging from complex systems. Organizers were Cyril Furtlehner (TAO), Fabien Moutarde (CAOR, Mines-ParisTech) and Jean-Marc Lasgouttes.
- Guy Fayolle is
  - Scientific advisor at the *Robotics Laboratory of Mines ParisTech*.
  - Associate editor of the journal *Markov Processes and Related Fields*,
  - Regular reviewer for some journals of high repute (PTRF, MPRF, QUESTA, IEEE-IT, JSP), and also for the *AMS Mathematical Reviews*.
  - Member of the working group IFIP WG 7.3.
  - Program committee member of the regular *Int. Symposium on Computer and Information Sciences*, held in Paris at IHP in 2012. The chairman-organizer is E. Gelenbe (Imperial College, UK).

He was invited at the *Séminaire de Probabilités* of Institut Fourier (Grenoble, 11 dec. 2012) to speak on *Asymptotics of Random Walks in the Quarter Plane*. He participated in the redaction of the proposal MACCA (*Marches aléatoires confinées dans des cônes: aspects probabilistes, combinatoires et algébriques*), to be submitted January 2013. This project will be managed from the *Laboratoire de Mathématiques et Physique Théorique à Tours* (LMPT).

- Jean-Marc Lasgouttes has been reviewer for Euro Working Group on Transportation (EWGT 2012) and European Journal on Operation Research (EJOR).
- Gérard Le Lann was invited keynote speaker at Vehicular Communications and Applications (VCA 2012) Workshop (MED-HOC-NET 2012), Cyprus, June 2012.
- Philippe Morigot has been re-elected member of the steering committee of the French association for Artificial Intelligence (AFIA). He is Editor-in-Chief of the newsletter of this association. He is reviewer of the International Journal of Advanced Robotics Systems.
- Fawzi Nashashibi is:
  - Scientific advisor at the *Robotics Laboratory of Mines ParisTech*.
  - Supervisor of 2 PhD thesis at Mines ParisTech in 2012: Mr. Raoul de Charette de la Contrie and Miss Anne-Sophie Puthon and supervisor of 4 PhD thesis at Inria: B. Lefaudeux, H. Li, G. Tréhard, P. Merdignac.
  - Supervisor of 2 PhD thesis at the École Polytechnique d’Alger: Mr. Samir Meniche et Mr. Madjid Hank.
  - Associate editor of the journal *Traitement du signal*,
  - Associate editor and reviewer of major conferences in ITS and Robotics (IEEE IV, IEEE, ITSC, IEEE ICRA, IEEE ICARCV, IEEE ICVES,...)
  - Regular reviewer for some journals of high repute (Transportation Research Part C, IJVAS, IEEE Transactions on Instrumentation and Measurement, IEEE Robotics and Automation Magazine, IEEE Transactions on ITS, IEEE TVT,...).

- Member of the European working group on Automation of the iMobility Forum.
- Member of the International Committee on Vehicle Highway Automation (AHB30)
- Member of the Technical Program Committee of the 12th International Conference on Control, Automation, Robotics and Vision (ICARCV 2012) in Guangzhou (China). He was organizer and chairman of the invited session entitled “*Coordinated Guidance of Multiple Autonomous Robots/vehicles*”.

Fawzi Nashashibi was an invited keynote speaker at the “*Workshop on Navigation, Perception, Accurate Positioning and Mapping for Intelligent Vehicles*”, at IEEE International Intelligent Vehicles Symposium (June 3-7), Alcalá de Henares (Spain). He was a keynote speaker at the seminar entitled “*Electric vehicles and urban integration*”, June 8th, Mines ParisTech. He was an invited speaker at the plenary meeting of MOV’EO on November 29th with a round table dedicated to the “*Connected Vehicle*”.

- Evangeline Pollard was a member of the Technical Program Committee of the International Conference on Information Fusion. She was the chairman of the session entitled “Localization, Navigation and Mapping” for the 12th International Conference on Control, Automation, Robotics and Vision (ICARCV 2012) in Guangzhou (China). She is reviewer for several international journals and conferences: IEEE International Conference on Robotics and Automation (ICRA’12), IEEE International Conference on Vehicular Electronics and Safety (ICVES’12), Journal of Selected Topics in Signal Processing, IEEE Transactions on Vehicular Technology, Journal of Zhejiang University Science C (Computers & Electronics).
- Oyunchimeg Shagdar is an associate editor of Wiley International Journal of Communication Systems. She was a member of Technical Program Committee of the IARIA International Conference on Emerging Network Intelligence (Emerging 2012). She is a reviewer of a number of international journals and conferences, including IEEE Communications Magazine, IEEE Communications Letter, IEICE Transactions on Communications, IEEE Vehicular Technology Conference (VTC), and IEEE International Conference on Communications (ICC).

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

*Fawzi Nashashibi*

Licence: “Programmation avancée”, 84h, niveau (L1), Université Paris-8 Saint-Denis, France

Master: “Vision pour la robotique”, 16h, 2nd year (MAREVA), Mines ParisTech, France

“Programmation C++/OpenGL”, 16h, 2nd year (MAREVA), Mines ParisTech, France

“Programmation avancée et infographie 3D”, 25h, niveau (M1), Ecole d’ingénieurs ESILV, France

“Synthèse d’images”, 12h, niveau (M2), INT Sud Telecom, France.

*Jean-Marc Lasgouttes*

Master: “Analyse de données”, 59.5h, second year of Magistère de Finance (M1), University Paris 1 Panthéon Sorbonne, France

*Gérard Le Lann*

Master: “Communications et coordination temps réel dans les réseaux véhiculaires ad hoc”, Module du cours de 5ème année “Réseaux temps réel”, INSA Lyon, January 2011

“Vehicular Ad Hoc Networks”, Module de Master, TELECOM Bretagne, Rennes, June 2011

*Victorin Martin*

Licence: “Statistiques”, 9h, first year of Ecole Centrale Paris (L3) Châtenay-Malabry, France

*Philippe Morignot*

Licence: “Constraint programming”, 15h, L3, Epita (Le Kremlin-Bicêtre)

Licence: "Linear programming", 15h, L3, Epita (Le Kremlin-Bicêtre)

Licence: "Rule-based systems", 15h, L3, Epita (Le Kremlin-Bicêtre)

### 9.2.2. Supervision

PhD: Manabu, "Communications Management in Cooperative Intelligent Transportation Systems", Mines Paris Tech, defended on December 20, 2012, supervisor: Arnaud de La Fortelle, co-supervisor Thierry Ernst

PhD: Hao Li, "Cooperative perception: application in the context of intelligent vehicles systems", Mines ParisTech, defended on the 21st September 2012, supervisor: Fawzi Nashashibi

PhD in progress: Victorin Martin, "Modélisation probabiliste et inférence par propagation de croyances: application au trafic routier", from 01/12/2009, supervisor Arnaud de La Fortelle, co-supervisors Cyril Furtlechner and Jean-Marc Lasgouttes

PhD in progress: Benjamin Lefaudeux, "Multi-sensors fusion for dynamic road mapping: application to autonomous vehicles", from 01/10/2012, supervisor: Fawzi Nashashibi

PhD in progress: Ines Ben Jemaa, "Communications and Management Control for Cooperative Vehicular Systems", from January 01, 2011, supervisor: Arnaud de La Fortelle, co-supervisor Paul Muhlethaler, Oyunchimeg Shagdar

PhD in progress: Guillaume Tréhard, "Autonomous urban driving: dealing with intersections", from 01/10/2012, supervisor: Fawzi Nashashibi, co-supervisor: Evangeline Pollard

PhD in progress: Pierre Merdignac, "Development of cooperative perception and communication system for vulnerable's safety enhancement", started at the 1st October 2012, supervisor: Fawzi Nashashibi, co-supervisor: Oyunchimeg Shagdar, Evangeline Pollard

### 9.2.3. Juries

Fawzi Nashashibi was a reviewer of the following HDR thesis defense:

- Mr. Alain Lambert, "Contribution à la navigation en robotique mobile", University of Orsay Paris-Sud, Orsay, 10/12/2012.
- Mr. Raphaël Labayrade, "Perceptions artificielle et humaine pour l'amélioration de la sécurité et du confort dans les espaces construits", University Pierre et Marie Curie (Paris 6), Paris, 06/04/2012.

Fawzi Nashashibi was a reviewer of the following PhD thesis defense:

- Mr. Sébastien Demmel, "Building an augmented map for road risk assessment", Queensland University of Technology (Australia) and University of Versailles Saint-Quentin-en-Yvelines, Vélizy, 14/12/2012.
- Mr. Antoine Zanuttini, "Du photoréalisme au rendu expressif en image 3D temps réel dans le jeu vidéo : programmation graphique pour la profondeur de champ, la matière, la réflexion, les fluides et les contours.", University of Saint-Denis (Paris-8), St-Denis, 16/11/2012.
- Miss Edwige Lelièvre, "Des jeux de rôle en ligne tridimensionnels aux jeux à réalité alternée : expérience esthétique, création et expérimentation", University of Saint-Denis (Paris-8), St-Denis, 09/11/2012.
- Mr. David Marquez-Gamez, "Towards visual navigation in dynamic and unknown environment: trajectory learning and following, with detection and tracking of moving objects", INSA (University of Toulouse), Toulouse, 26/10/2012.
- Mr. Naveed Mohammad, "Contribution to the use of 3D lidars for autonomous navigation: calibration and qualitative localization", University of Toulouse, Toulouse, 01/02/2012.

Fawzi Nashashibi was an examiner of the following PhD thesis defense:

- Mr. Benoît Chrétien, “Simulation of a new automotive concept based on a centralized approach for driver assistance system activation decision”, University Evry-Val-d’Essonne, Evry, 06/01/2012.
- Mr. Raoul de Charette de la Contrie, “Vision Algorithms for Rain and Traffic Lights in Driver Assistance Systems”, Mines ParisTech, Paris, 17/09/2012.
- Mr. Hao Li, “Cooperative Perception: Application in the Context of Outdoor Intelligent Vehicle Systems”, Mines ParisTech, Paris, 21/12/2012.

### **9.3. Popularization**

- Several members of the project-team participated to demonstrations at the national “Fête de la Science”, October 10-13.
- Philippe Mornigot presented the domain of Artificial Intelligence to three college students (TPE, Travaux Pratiques Encadrés) from the Lycée Jules Ferry, Versailles.

## LAGADIC Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

- *Editorial boards of journals*
  - Eric Marchand and Paolo Robuffo Giordano are Associate Editors of the IEEE Trans. on Robotics.
  - François Chaumette is in the Editorial Board of the Int. Journal of Robotics Research. He has also been Associate Editor of the Int. Journal of Optomechatronics from its creation in 2007 till September 2012.
- *Technical program committees of conferences*
  - François Chaumette: ICRA'12, RSS'12, ISPRS'12, IROS'12, SYROCO'12, ISOT'12, WRV'13, ICRA'13
  - Eric Marchand: RFIA'12, Coresa'12, ICRA'12, RSS'12, ICRA'13
  - Patrick Rives: ICRA'12, RFIA'12, Innorobo'12, Vicomor'12
- *Selection committees*
  - François Chaumette was in the selection committee for a Professor position at the “Université de Strasbourg” and at the “Université Paul Sabatier” in Toulouse.
  - Alexandre Krupa was in the selection committee for an Assistant Professor position at the “Université de Strasbourg” and at the “Université de Franche-Comté”.
  - Eric Marchand was in the selection committee for an Assistant Professor position at the “Université de Strasbourg” and at “Ensicaen” in Caen. He was in the selection committee for a Professor position at the “Université de Rennes 1”.
  - Patrick Rives was in the selection committee of Starting and Advanced Research positions at Inria.
- *Participation in seminars, invitation*
  - François Chaumette has been invited to give a talk at the 4<sup>th</sup> Cimat Robotics Workshop in Guanajuato, Mexico [21] and to the 3<sup>rd</sup> French-Sino Symposium on Virtual Reality in Qingdao, China [22].
  - Eric Marchand has been invited to give a talk at the Workshop on Fundamental and Applied 3D Computer Vision in honor of Richard Hartley in Clermont Ferrand [23].
  - Patrick Rives has been invited to give a talk at the RFIA Atelier Monument 3D (Lyon, France, January 2012) [24], Innorobo Conference on Service Robotics (Lyon, France, March 2012) [25], and IROS Workshop Vicomor (Vilamoura, Portugal, October 2012) [26].
- *Animation at the international level*
  - François Chaumette has been elevated to IEEE Fellow in November 2012. He served as expert for the ERC Starting Grants and has been appointed to be a panel member of the ERC Consolidator Grants. He was in the 2012 and 2013 IEEE RAS chapter of the year award nomination committee.
- *Animation at the national level*
  - François Chaumette and Patrick Rives are members of the scientific council of the “GdR Robotique” and JNRR.

- François Chaumette served for the ANR Contint monitoring committee.
- Patrick Rives is an expert for Oseo (Agence Nationale pour la Valorisation), Agence Nationale de la Recherche (ANR) and the Swiss National Science Foundation.
- Patrick Rives is a member of the Inria evaluation committee.
- Alexandre Krupa is a member of the Inria Cost-GTAI in charge of the evaluation of the ADTs (“Actions de développements technologiques”).
- François Chaumette is a member of the animation committee of Inria’s thematic domain “Perception, cognition, interaction”.
- *Animation at the regional and local levels*
  - Eric Marchand is in the board of the “Images et réseaux” competitiveness cluster.
  - Eric Marchand is a member of the scientific council of the École supérieure d’ingénieurs de Rennes (ESIR).
  - François Chaumette is the president of the committee in charge of all the temporary recruitments (“Commission Personnel”) at Inria Rennes Bretagne Atlantique and Irisa. He is a member of the Head team of Inria Rennes Bretagne Atlantique.
  - Eric Marchand is a member of the committee in charge of all the temporary recruitments (“Commission Personnel”) at Inria Rennes Bretagne Atlantique and Irisa. He is particularly in charge of Irisa Ph.D. students.
  - Marie Babel and Fabien Spindler are members of the “Comité de centre” of Inria Rennes Bretagne Atlantique.
  - Fabien Spindler is a member of the “Commission développement durable” of Inria Rennes Bretagne Atlantique.
  - Alexandre Krupa is a member of the CUMIR (“Commission des Utilisateurs des Moyens Informatiques”) of Inria Rennes Bretagne Atlantique.

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

Marie Babel:

Master INSA3: “Statistical Signal Processing”, 24 hours, M2, Institut National des Sciences Appliquées de Rennes

Master INSA1: “Assembler”, 30 hours, L3, Institut National des Sciences Appliquées de Rennes

Master INSA2: “Computer science project”, 30 hours, M1, Institut National des Sciences Appliquées de Rennes

Master INSA2: “Image analysis”, 18 hours, M1, Institut National des Sciences Appliquées de Rennes

Master INSA1: “Remedial math courses”, 24 hours, L3, Institut National des Sciences Appliquées de Rennes

Master INSA1: “Risk Management for Information Systems”, 8 hours, L3, Institut National des Sciences Appliquées de Rennes

François Chaumette:

Master ESIR3: “Visual servoing”, 12 hours, M2, Ecole supérieure d’ingénieurs de Rennes

Ph.D.: IEEE RAS Summer School on Robot Vision and Applications: “Visual servoing”, 4.5 hours, Universidad de Chile, Santiago.

Alexandre Krupa:

Master SIBM (Signals and Images in Biology and Medicine): “Medical robotics guided from images”, 4.5 hours, M2, Université de Rennes 1, Brest and Angers

Eric Marchand:

Master ESIR2: “Colorimetry”, 24 hours, M1, Ecole supérieure d’ingénieurs de Rennes

Master ESIR2: “Computer vision”, 24 hours, M1, Ecole supérieure d’ingénieurs de Rennes

Master ESIR3: “Special effects”, 24 hours, M2, Ecole supérieure d’ingénieurs de Rennes

Master ESIR3: “Computer vision: tracking and recognition”, 24 hours, M2, Ecole supérieure d’ingénieurs de Rennes

Master MRI: “Computer vision: geometry”, 24 hours, M2, Université de Rennes 1.

### 9.2.2. Supervision

HdR: Marie Babel, “From image coding and representation to robotic vision”, Université de Rennes 1, defense in June 2012 [10]

HdR: Alexandre Krupa, “Contributions à l’asservissement visuel échographique”, Université de Rennes 1, defense in December 2012 [13]

Ph.D.: Maxime Meilland, “Cartographie RGB-D dense pour la localisation visuelle temps-réel et la navigation autonome”, Ecole des Mines de Paris, defense in March 2012, supervised by Patrick Rives and Andrew Comport (I3S/CNRS) [14]

Ph.D.: Alexandre Chapoulie, “Contributions aux méthodes de détection visuelle de fermeture de boucle et de segmentation topologique de l’environnement”, Université de Nice-Sophia Antipolis, defense in December 2012, supervised by Patrick Rives and David Filliat (ENSTA) [11]

Ph.D.: Laurent Coutard, “Appontage automatique d’avions par asservissement visuel”, Université de Rennes 1, defense in December 2012, supervised by François Chaumette [12]

Ph.D. in progress: Tao Li, “Commande d’un robot de télé-échographie par asservissement visuel échographique”, started in October 2009, supervised by Alexandre Krupa

Ph.D. in progress: Pierre Martin, “Augmented reality on smartphones”, started in February 2010, supervised by Eric Marchand

Ph.D. in progress: Rafik Sekkal, “Features extraction and robust tracking of objects for video representation”, started in October 2010, supervised by Marie Babel

Ph.D. in progress: Antoine Petit, “3D model-based tracking of complex objects in a spatial context”, started in December 2010, supervised by Eric Marchand

Ph.D. in progress: Manikandan Bakthavatchalam, “Utilisation des moments photométriques en asservissement visuel”, started in October 2011, supervised by François Chaumette

Ph.D. in progress: Bertrand Delabarre, “An information theoretic approach for navigation in robotics”, started in October 2011, supervised by Eric Marchand

Ph.D. in progress: Tawsif Gokhool, “Représentations valides à long terme pour la navigation et l’apprentissage des modèles 3D”, started in February 2012, supervised by Patrick Rives

Ph.D. in progress: Romain Drouilly, “Représentation hybride métrique, topologique et sémantique d’environnement 3D pour la localisation temps réel”, started in May 2012, supervised by Patrick Rives

Ph.D. in progress: Le Cui, “Nano-manipulation par asservissement visuel”, started in October 2012, supervised by Eric Marchand

Ph.D. in progress: Riccardo Spica, “Autonomous vision-based two-hand manipulation strategies for humanoid robots”, started in December 2012, supervised by Paolo Robuffo Giordano and François Chaumette

### **9.2.3. Juries**

- François Chaumette: Pierre Lebraly (Ph.D., president, Institut Pascal, Clermont-Ferrand), Adrien Durand Petiteville (Ph.D., reviewer, Laas, Toulouse), Pierre Rouanet (Ph.D., president, Inria Bordeaux), Moslem Kazemi (Ph.D., reviewer, Simon-Fraser University, Vancouver), Baptiste Charmette (Ph.D., reviewer, Institut Pascal, Clermont-Ferrand)
- Eric Marchand: Maxime Meiland (Ph.D., reviewer, Inria Sophia Antipolis), Pauline Merveilleux (Ph.D., reviewer, Mis, Amiens), Cédric Demonceaux (HDR, reviewer, Université de Bourgogne, Le Creusot)
- Patrick Rives: Mohamed Marouf (Ph.D., Ecole des Mines de Paris), Alessandro Victorino (HdR, Heudiasyc, Compiègne), Pauline Merveilleux (Ph.D., reviewer, Mis, Amiens), Cédric Demonceaux (HdR, reviewer, Université de Bourgogne, Le Creusot), Baptiste Charmette (Ph.D., reviewer, Institut Pascal, Clermont-Ferrand)

## **9.3. Popularization**

- Due to the visibility of our experimental platforms, the team is often asked to present its research activities to students, researchers or industry. Our panel of demonstrations allows us to highlight recent results concerning the positioning of an ultrasound probe by visual servoing, the construction of a tower by combining 3D model-based visual tracking and visual servoing techniques to pick up cubes that are assembled, the navigation of a mobile robot in urban environments, and vision-based detection and tracking for space navigation in a rendezvous context.
- Fabien Spindler is a member of the editorial board of "Ouest Inria", the internal journal at Inria Rennes Bretagne Atlantique.
- Eric Marchand was co-author of an article entitled "FlyVIZ : un casque qui permet de voir dans toutes les directions" in Interstice, which is an online French popularization magazine for research in computer science.

## AYIN Team

# 9. Dissemination

## 9.1. Scientific Animation

- Ikhlef Bechar and Yuliya Tarabalka presented on June 15, 2012 their work for visiting students from SupCom-Tunis to Inria.
- Ikhlef Bechar presented his work at Astrium/EADS in Toulouse in January and at “ENVOL de la Recherche” day organized by the EADS foundation in March in Paris.
- Vladimir Krylov presented a paper at the conference IEEE ICIP in September in Orlando, USA. He was a reviewer for the journals IEEE TIP, IEEE TGRS, IEEE GRSL, IEEE JSATRS, DSP and PRL.
- Yuliya Tarabalka presented 2 papers at the conference IEEE IGARSS’2012 and a paper at the conference UkrObraz’2012. She also presented a poster at the Journées CNES Jeunes Chercheurs in Toulouse in October. She gave 4 seminars at Inria-SAM, CESBIO in Toulouse, University of Orleans and Télécom ParisTech in Paris (France). She was a reviewer for the journals IEEE TIP, IEEE TGRS, IEEE GRSL, Remote Sensing, IEEE JSTARS, and for the conferences ISPRS’2012, IEEE IGARSS’2012 and ICPRAM’2012. She was a part of the program committee for the conferences ISPRS’2012 and ICPRAM’2012. She chaired a session at the conference IEEE IGARSS’2012.
- Yannick Verdie presented a paper at the conference ECCV’12 in Florence, Italy in October. He also presented his work at the National Institute of Informatics (Nii) in Tokyo, Japan.
- Aurélie Voisin presented 2 papers at the conferences IS&T/SPIE Electronic Imaging’12 in San Francisco (USA) in January, and EUSIPCO’12 in Bucharest (Romania) in August. She presented a poster at Pleiades days organized by CNES in Toulouse in January. She was also invited to present her work by the Centre de Recherche en Automatique de Nancy (France) in June.
- Josiane Zerubia chaired a session at IEEE ICIP in September in Orlando, USA, and attended the IVMSP-TC meeting there. She was a reviewer for TS (Traitement du Signal) and SFPT (Revue Française de Photogrammétrie et de Télédétection). She also was a reviewer and/or a program committee member for ICASSP’12, ISBI’12 and ICIP’12, as member of the IEEE BISP TC and IEEE IVMSP TC, and for SPIE-ISPRS’12 (“Image and Signal Processing for Remote Sensing”) and ICPRAM’12. She is an IEEE Fellow. She was a member of the Biological Image and Signal Processing (BISP) Technical Committee till April 2012 and is a member of the Image, Video and Multidimensional Signal Processing (IVMSP) Technical Committee of the IEEE Signal Processing Society. She is an Associate Editor of the collection ‘Foundation and Trends in Signal Processing’ [<http://www.nowpublishers.com/>]. She is a member of the Editorial Boards of IJCV, the Revue Française de Photogrammétrie et de Télédétection of SFPT and the journal ‘Traitement du Signal’. She is an Associate Editor of the electronic journal Earthzine [<http://www.earthzine.org/>]. Josiane Zerubia visited Astrium EADS Toulouse in January. She also participated in the CNES Pleiades days and CNES Research and Technology day both in Toulouse in January. In March, she presented Inria-SAM activities and the research work of AYIN at BASF-France Headquarters at Levallois Perret, attended the IGN Research days in St Mande and participated to the Editorial Board meeting of SFPT at CNES in Paris. In April she visited ACRI ST in Sophia Antipolis. In June she attended the KAL’Haiti day at CNES in Paris. She participated to the LIRA Consortium workshop at Inria-SAM in September and to a LIRA meeting with Philips R&D in December. As a PI, she regularly organized and attended meetings with Galderma in Sophia-Antipolis. As a Co-PI, she also organized and participated to several meetings with IRD at UMR AMAP in Montpellier and at Inria-SAM. She is a deputy of Frederic Alexandre at the Executive Committee of LIRA Consortium (Philips, CWI, Fraunhofer, Inria), and a Co-PI of an Inria/DITEN/ISA project. She is a member of the ORFEQ group (CNES). She is a consultant for Galderma R&D in Sophia-Antipolis. Finally, she is a member of the program committee of Master 2 in Computational Biology and Biomedicine (CBB) at the University of Nice Sophia Antipolis in charge of sponsoring.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

Master: Yuliya Tarabalka, Digital imaging, 15h eq. TD (2h of lectures + 12h of TD), M2 SVS ISAB, Université de Nice Sophia-Antipolis, France

Master et PhD: Yuliya Tarabalka, Computer vision, 8h of lectures = 12h eq. TD, M1 and M2, Ternopil Ivan Pul'uj National Technical University, Ukraine

Licence: Yuliya Tarabalka, Techniques for statistical data analysis, 39h eq. TD, L1, École Polytechnique de l'Université de Nice Sophia-Antipolis, France

Master: Josiane Zerubia, Deconvolution and denoising in confocal microscopy, 18h eq. TD (12h of lectures), M2 IFI BCC, Université de Nice Sophia-Antipolis, France. Furthermore she is also director of this course (total: 24h of lectures).

Master: Josiane Zerubia, Advanced techniques in signal and image processing, 30h eq. TD (20h of lectures), ISAE/SUPAERO, France. Furthermore she is also director of this course (total: 30h of lectures and 12.5h of TD). This course has been given to the third-year students of ISAE/SUPAERO and was also validated by Master 2 of Applied Mathematics of University Paul Sabatier of Toulouse.

Master: Josiane Zerubia, Introduction to image processing, 4.5h eq. TD (3h of lectures), M2 SVS ISAB, Université de Nice Sophia-Antipolis, France. Furthermore she is also director of the course "Digital imaging" at UNS, Master2 SVS ISAB, UE3 (total: 25h of lectures and 25h of TD).

Licence: Jia Zhou, Mathematics, 60h eq. TD, L2, IUT Montpellier, France.

### **9.2.2. Supervision**

#### *9.2.2.1. Ph.D. theses*

PhD: Aurélie Voisin, Supervised classification of high-resolution remote sensing images including urban areas by using Markovian models, University of Nice-Sophia Antipolis, Defended on October 17th, 2012, Josiane Zerubia.

PhD: Sylvain Prigent, Contribution of multi and hyperspectral imaging to skin pigmentation evaluation, University of Nice-Sophia Antipolis, Defended on November 30th, 2012, Xavier Descombes and Josiane Zerubia.

PhD: Jia Zhou, Object identification on remote sensing images of tropical forest canopies - applications to the study of Eucalyptus plantation and mangrove forest, University of Montpellier 2, Defended on November 16th, 2012, Pierre Couturon and Josiane Zerubia.

PhD in progress: Yannick Verdié, Urban scene analysis from unstructured point data, University of Nice-Sophia Antipolis, started in November 2010, Florent Lafarge and Josiane Zerubia.

PhD in progress: Seong-Gyun Jeong, New image processing methods for skin condition evaluation, University of Nice-Sophia Antipolis, started in December 2012, Josiane Zerubia and Yuliya Tarabalka.

PhD in progress: Paula Craciun, Automatic object tracking on a sequence of images taken from a geostationary satellite, University of Nice-Sophia Antipolis, started in December 2012, Josiane Zerubia and Pierre Del Moral.

### **9.2.3. Juries**

- Josiane Zerubia was a reviewer of one HdR and of one PhD thesis, and member of 3 PhD committees.

## **9.3. Popularization**

- Josiane Zerubia attended a meeting at ICIP'12 in Orlando organized by IEEE women in engineering ([http://www.ieee.org/membership\\_services/membership/women/women\\_about.html](http://www.ieee.org/membership_services/membership/women/women_about.html)). She met several female PhD students, postdocs and junior researchers to exchange views on women scientific careers in the world.

## IMEDIA2 Team

# 8. Dissemination

## 8.1. Scientific Animation

### 8.1.1. The ImageCLEF2012 Plant Task Identification Organisation and participation

**Participants:** Vera Bakic, Itheri Yahiaoui, Sofiene Mouine, Saloua Ouertani-Litayem, Wajih Ouertani, Anne Verroust-Blondet, Hervé Goëau.

We organized for the second year the plant task identification at the ImageCLEF evaluation forum for the cross-language annotation and retrieval of images (<http://www.imageclef.org/2012/plant>). The ImageCLEF's plant identification task [21] provides a testbed for the system-oriented evaluation of plant identification, more precisely on the 126 tree species identification based on leaf images. Three types of image content were considered: Scan, Scan-like (leaf photographs with a white uniform background), and Photograph (unconstrained leaf with natural background). The main originality of this data is that it was specifically built through a citizen sciences initiative conducted by Tela Botanica, a French social network of amateur and expert botanists. This makes the task closer to the conditions of a real-world application. With a total of eleven groups from eight countries and with a total of 30 runs submitted, involving distinct and original methods, this second year pilot task confirmed Image Retrieval community interest for biodiversity and botany, and highlights further challenging studies in plant identification.

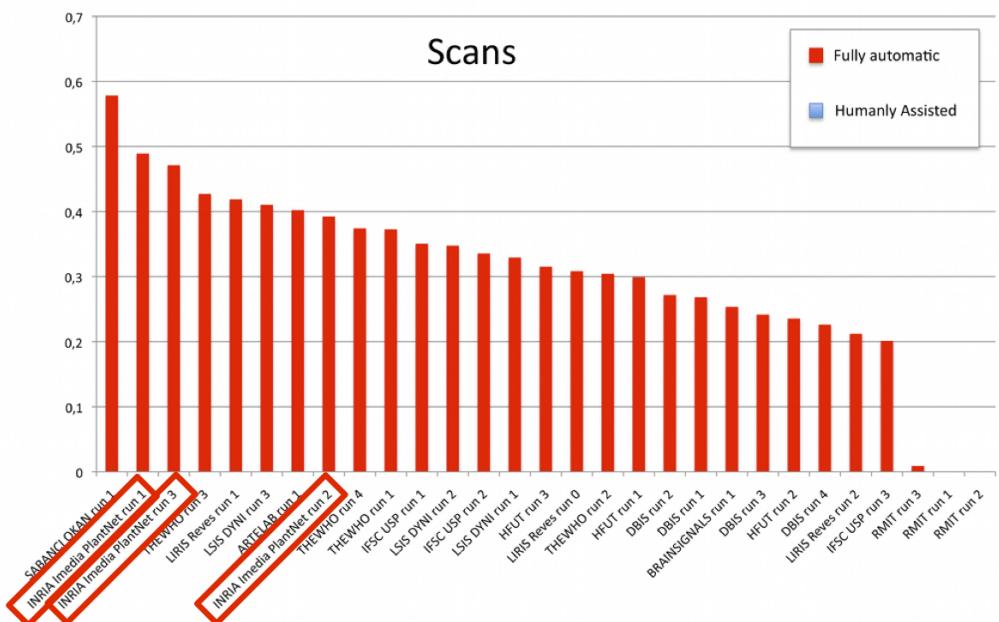


Figure 6. IMEDIA2's results at ImageCLEF2012 on Scan leaf images.

For the second year, members of IMEDIA2 team participated within the PI@ntNet project to the ImageCLEF plant identification task [20]. The runs submitted used very distinct approaches sometimes relying on similar extracted features. For Scan and Scan-like categories, the first two runs combined distinct local and contour approaches in two ways (late and early fusion), while the third run explored the learning capacity of a multi-class SVM technique on a contour based descriptor. For Photograph, our runs used local features positioned towards the center of the image to reduce the impact of background features. In the second run, an automatic segmentation with a rejection criterion was attempted. In the third run, points were associated with interesting zones. In general, even if they were distinct, the methods used performed very well.

#### *8.1.1.1. Nozha Boujemaa*

- Re-elected member in the Steering Board of NEM ETP (Networked and Electronic Media European Technology Platform) and acting as Inria representative.
- Scientific coordinator of PI@ntNet.
- Member of the steering committee of CHORUS+.
- Founding member of the ACM ICMR "ACM International Conference on Multimedia Retrieval" born from the fusion of: ACM MIR (International Conference on Multimedia Information Retrieval) and ACM CIVR (International Conference on Image and Video Retrieval)
- Member of the steering committee of ACM ICMR.
- Responsibilities within Inria: Director of the Inria Saclay Ile-de-France research center.

#### *8.1.1.2. Anne Verroust-Blondet*

- Member of the steering committee of PI@ntNet (WP5 co-leader: "Dissemination").
- Member of the steering committee of I-SEARCH (WP4 leader).
- Member of the committee for the "Corpus, data and tools for research in Humanities and Social Sciences" 2012 programme of the Social Sciences and Humanities department of the French National Research Agency (ANR).
- Member of the committee for the "COOPERATION 2011 - Partnerships of Production and Research Institutions in Focused Research and Technology Sectors" national action of the Ministry of Education, lifelong learning and religious affair of the Hellenic Republic.
- Expert for the Austrian Science Fund (FWF).
- Member of the steering committee of the CNRS GDR IG (Informatique Graphique).
- Member of the technical programme committee of the Fourth International Conference on Advances in Multimedia (MMEDIA 2012).
- Member of the editorial board of the "Revue Electronique Francophone d'Informatique Graphique" (REFIG).

## **8.2. Teaching - Supervision - Juries**

### ***8.2.1. Teaching***

Licence : Amel Hamzaoui, Algorithm and programming, 48 hours/year, L1, Orsay Paris 11 University, France.

Licence : Amel Hamzaoui, Web programming, 24 hours/year, L1, Orsay Paris 11 University, France.

Licence : Sofiene Mouine, C2I, 36 hours/year, L2, Paris 1 (Panthéon-Sorbonne) University, France.

Licence : Saloua Ouertani-Litayem, C2I, 48 hours/year, L1, Institut Henri Poincaré, Paris 5 University, France.

Licence : Asma Rejeb Sfar, Algorithms, 32 hours/year, L1, Paris Dauphine University, France.

### ***8.2.2. Supervision***

PhD: Amel Hamzaoui, Shared-Neighbours methods for visual content structuring and mining, Université Paris 11 Orsay, May 10 2012, Nozha Boujemaa and Alexis Joly;

PhD in progress: Esma Elghoul, 3D model segmentation, October 2010, Anne Verroust-Blondet;

PhD in progress: Sofiene Mouine, Geometric models for a local description of images, October 2010, Anne Verroust-Blondet and Itheri Yahiaoui;

PhD in progress: Wajih Ouertani, Relevance feedback on local features: application to plants annotations and identification, October 2008, Nozha Boujemaa and Michel Crucianu;

PhD in progress: Saloua Ouertani-Litayem, Visual similarity sensitive hashing methods for semantic image search in very large collections of images, October 2009, Nozha Boujemaa and Alexis Joly;

PhD in progress: Asma Rejeb Sfar, Machine Identification of Biological Shapes, October 2010, Nozha Boujemaa, Donald Geman;

PhD in progress: Mohamed Riadh Trad, Scalable information retrieval in distributed architectures, October 2009, Nozha Boujemaa and Alexis Joly;

PhD in progress: Zahraa Yasseen, Sketch-based approaches using images and curves, February 2011, Anne Verroust-Blondet.

### **8.2.3. *Juries***

Anne Verroust-Blondet has been a jury member (rapporteur) of Thibault Luginbuhl PhD thesis, "Régularisation de Surface 3D par une approche fondée sur un modèle", Télécom ParisTech, January 2012.

**LEAR Project-Team**

## **9. Dissemination**

### **9.1. Scientific Animation**

- Conference, workshop, and summer school organization:
  - Z. Harchaoui: Co-organizer of the ICML 2012 Workshop on New Trends in RKHS and kernel-based methods, July 2012.
  - Z. Harchaoui: Co-organizer of the Optimization and Statistical Learning workshop, Les Houches, January 2013.
  - C. Schmid: Co-organizer of the Inria Visual Recognition and Machine Learning Summer School, Grenoble, July 2012. Attracted a total of 182 participants (48 from France, 94 from Europe and 40 from America and Asia).
  - C. Schmid: Co-organizer IPAM workshop Large Scale Multimedia Search, January 9–13, 2012.
- Editorial boards:
  - C. Schmid: International Journal of Computer Vision, since 2004.
  - C. Schmid: Foundations and Trends in Computer Graphics and Vision, since 2005.
  - J. Verbeek: Image and Vision Computing Journal, since 2011.
- General chair:
  - C. Schmid: CVPR '15.
- Program chair:
  - C. Schmid: ECCV '12.
- Area chair:
  - J. Verbeek: BMVC '12, ECCV '12
  - C. Schmid: NIPS '12, CVPR '13, ICCV '13
- Program committees:
  - AISTATS 2012: Z. Harchaoui.
  - BMVC 2012: T. Mensink.
  - CVPR 2012: Z. Harchaoui, T. Mensink, C. Schmid, J. Verbeek.
  - ECCV 2012: M. Douze, T. Mensink, J. Verbeek.
  - ICML 2013: Z. Harchaoui, J. Mairal.
  - NIPS 2012: Z. Harchaoui, J. Verbeek.
  - WACV 2013: R. Cinbis.
  - NIPS computational biology workshop 2012: J. Mairal.
- Prizes:
  - C. Schmid was nominated IEEE Fellow, 2012.
  - Best paper award of Pattern Recognition journal in 2009 for the paper *Description of interest regions with local binary patterns*. M. Heikkila, M. Pietikainen, C. Schmid. Pattern Recognition Volume 42, Issue 3, March 2009, Pages 425-436, <http://hal.inria.fr/inria-00548650/en>.

- We participated in the Multimedia Event Detection track of TrecVid 2012, one of the major benchmarks in automatic video analysis. We ranked 2-nd out of 17 participants for the pre-specified event category task, and first out of 13 participants on the ad-hoc event category task.

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

Courses taught by team members in 2012:

- Z. Harchaoui, Kernel-based methods for statistical machine learning, 18h, M2, Grenoble University, France.
- Z. Harchaoui, Tutorial on large-scale learning, 1h, ENS-Inria Visual Recognition and Machine Learning Summer School 2012, Grenoble, France.
- J. Revaud and M. Douze, Multimedia Databases, 18h, M2, ENSIMAG, France.
- C. Schmid, Object recognition and computer vision, 10h, M2, ENS ULM, France.
- C. Schmid and J. Verbeek, Machine Learning & Category Representation, 18h, M2, ENSIMAG, France.
- C. Schmid, Tutorial on image search and classification, 3h, Inria Visual Recognition and Machine Learning Summer School 2012, Grenoble, France.

### 9.2.2. Supervision

PhD theses defended in 2012:

- A. Gaidon, *Structured Models for Action Recognition in Real-world Videos - Modèles Structurés pour la Reconnaissance d'Actions dans des Vidéos Réalistes* [1], Université de Grenoble, 25/10/2012, advisers: Z. Harchaoui and C. Schmid.
- T. Mensink, *Apprentissage de Modèles pour la Classification et la Recherche d'Images* [2], Université de Grenoble, 26/10/2012, advisers: J. Verbeek, G. Csurka, and C. Schmid.
- A. Prest, *Weakly supervised methods for learning actions and objects* [3], ETHZ, 4/9/2012, advisers: V. Ferrari, and C. Schmid.
- G. Sharma, *Semantic description of humans in images*, Université de Caen, 17/12/2012, advisers C. Schmid and F. Jurie.

### 9.2.3. Juries

Participation in PhD defense juries:

- J. Verbeek, jury member of PhD committee for N. Elfiky, Computer Vision Centre, Barcelona, Spain, June 2012.
- C. Schmid, jury member of PhD committee for S. Bak, Université of Sophia-Antipolis, July 2012.
- C. Schmid, jury member of PhD committee for O. Duchenne, ENS Cachan, November 2012.
- C. Schmid, jury member of PhD committee for A. Joulin, ENS Cachan, December 2012.

### **9.3. Invited presentations**

- Z. Akata: Seminar at Computer Vision and Machine Learning group, Institute of Science and Technology, Vienna, Austria, December 2012.
- A. Gaidon: Presentation at MSR-Inria CVML workshop, Microsoft Research, Cambridge, UK, April, 2012.
- A. Gaidon: Seminar at ETH Zürich, Switzerland, April, 2012.
- A. Gaidon: Seminar at Xerox Research Center Europe (XRCE), Meylan, France, May, 2012.
- Z. Harchaoui: Seminar at Gatsby Neuroscience Unit, UCL, London, March 2012.
- Z. Harchaoui: Presentation at International Symposium in Mathematical Programming, Berlin, August 2012.
- Z. Harchaoui: Seminar at UC Berkeley, September 2012.
- Z. Harchaoui: Presentation at ECML/PKDD Discovery Challenge, Bristol, September 2012.
- Z. Harchaoui: Seminar at Visual Geometry group, Oxford University, October 2012.
- J. Mairal: Seminar at Parietal team, Neurospin, CEA - Inria, Saclay, France, November 2012.
- J. Mairal: Seminar at Institut Curie, Paris, France, November 2012.
- J. Mairal: Seminar at Willow and Sierra teams, Inria, Paris, France, November 2012.
- J. Mairal: Seminar at EPFL, Lausanne, Switzerland, November 2012.
- T. Mensink: Seminar at Computer Vision and Machine Learning group, Institute of Science and Technology, Vienna, Austria, March 2012.
- C. Schmid: Workshop on Large Scale Multimedia Search, Los Angeles, January 2012.
- C. Schmid: Seminar at New York University, May 2012.
- C. Schmid: Seminar at Google, Zürich, May 2012.
- C. Schmid: Seminar at ETHZ, Zürich, May 2012.
- C. Schmid: Keynote speaker at ACM International Conference on Multimedia Retrieval (ICMR), Hong Kong, June 2012.
- C. Schmid: Keynote speaker at the International Symposium on Visual Computing, Crete, July 2012.
- C. Schmid: Tutorial on modern features at ECCV 2012, Florence, October 2012.
- C. Schmid: First international workshop on visual analysis and geo-localizaton of large-scale imagery in conjunction with ECCV'12, Florence, October 2012.
- C. Schmid: Keynote speaker at GdR ISIS, Le Touquet, November 2012.
- C. Schmid: Seminar at UC Berkeley, December 2012.
- J. Verbeek: Seminar at TEXMEX group, Inria, Rennes, France, April 2012.
- J. Verbeek: Seminar at Computer Vision and Machine Learning group, Institute of Science and Technology, Vienna, Austria, June 2012.
- J. Verbeek: Seminar at Computer Vision Centre, Barcelona, Spain, June 2012.

### **9.4. Popularization**

- C. Schmid will present in 2013 the research area of visual recognition to a group of school teachers as well as to a class of high school students.

## **MAGRIT Project-Team**

# **8. Dissemination**

## **8.1. Scientific Animation**

- The members of the team reviewed articles for IEEE Transactions On Robotics, IEEE Transactions on Visualization and Computer Graphics, Medical Image Analysis, International Journal of Computer Vision Signal, Image and Video Processing, Signal Processing Letters.
- M.O. Berger was a member of the program committee of the following conferences: IEEE International Symposium on Mixed and Augmented Reality (ISMAR 2012), International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2012), the IEEE International Symposium on Biomedical Imaging (ISBI) 2012, International Congerence on pattern recognition (ICPR 2012).
- M.O Berger co-organized with Christian Daul (CRAN, Nancy) a one day worshop on medical imaging in Nancy. M.O Berger co-organized with Christian Linte the AE-CAI satellite MICCAI workshop (Augmented Environments and Computer-Assisted Interventions) in Nice.
- Gilles Simon was a member of the program committee of ISMAR 2012, Mobile HCI and Computer Graphics International 2012. He was an invited speaker at the "Journées Réalité Virtuelle et Augmentée", 19-24 February 2012, Ecole Militaire Polytechnique d'Alger.
- P.F. Villard was a member of the program committee of MICCAI 2012, CGVCVIP 2012 and ISBI 2012.
- E. Kerrien was a member of the program committee of MICCAI 2012.
- Members of the team are members of local management committees (Conseil de Laboratoire and Comité de Centre), and participate on a regular basis, to scientific awareness and mediation actions.

## **8.2. Teaching - Supervision - Juries**

### **8.2.1. Teaching**

Licence: Mathématiques (analyse complexe, distributions), 20 h, École des Mines de Nancy, France  
 Licence: Graphic and haptic rendering (30h), IUT Saint-Dié des Vosges, France  
 Licence: Image processing(30h), IUT Saint-Dié des Vosges, France  
 Licence: 3D programming (30h), IUT Saint-Dié des Vosges, France  
 Licence: Object oriented programming (110h),IUT Saint-Dié des Vosges, France  
 Licence: Outils informatiques et internet, 20 h, L1, Université de Lorraine, France  
 Licence: Programmation shell-script sous Linux, 30 h, L2, Université de Lorraine, France  
 Licence: Conception et programmation langage objet, 60 h, L2, Université de Lorraine, France  
 Licence: Introduction à la programmation objet; conception d'interfaces graphiques, 34 h, L2, Université de Lorraine, France  
 Licence: Programmation avancée en langage impératif classique, 14 h, L3, Université de Lorraine, France  
 Licence: Bases geométriques de l'imagerie, 25 h, L3, Université de Lorraine, France  
 Licence: Programmation et bases de données, 35 h, L3, Université de Lorraine, France  
 Licence: Modélisation 3D, 40 h, LP, Université de Lorraine, France  
 Master: Perception et raisonnement, 50 h, M1, Université de Lorraine, France

Master: Réalité augmentée, 30 h, M2, Université de Lorraine, France  
 Master: Réalité augmentée, 24 h, 2A, Télécom-Nancy, Université de Lorraine, France  
 Master: Reconnaissance des formes statistiques, 15 h, M2, Université de Lorraine, France  
 Master: Perception de la structure et du mouvement, 15 h, M2, Université de Lorraine, France  
 Master: Outils pour le traitement et l'analyse d'images, 21 h, 2A, École des Mines de Nancy, France  
 Master: Modélisation et prévision (régression linéaire, séries chronologiques), 48 h, École des Mines de Nancy, France  
 Master: Recherche opérationnelle, 59 h, École des Mines de Nancy, France  
 Master: Initiation au traitement du signal et applications, 21 h, Ecole des Mines de Nancy, France  
 Master: Méthodes et outils pour la conception informatique, 34 h, 2A, Télécom-Nancy, Université de Lorraine, France  
 SUPELEC: Réalité augmentée, 3 h, 3A, SUPELEC Metz, France  
 DIU: Robotique chirurgicale, 1 h, CHU Nancy Univ. Hospital, France.

### **8.2.2. Supervision**

PhD in progress: S. Bhat, Learning methods for pose computation, December 2008, Marie-Odile Berger, Frédéric Sur.  
 PhD in progress: Ahmed Yureidini, Modélisation implicite des vaisseaux sanguins pour la simulation interactive d'actes de radiologie interventionnelle, January 2010, Erwan Kerrien, Stéphane Cotin (Shacra, Lille).  
 PhD in progress: Nazim Haouchine, Modèles physiques pour la réalité augmentée des organes déformables, Janvier 2012, Marie-Odile Berger, Stéphane Cotin (Shacra, Lille).

### **8.2.3. Juries**

- Marie-Odile Berger was reviewer of the PhD of A. Letouzey, Z. Droueche and of the HDR of E. Prados.
- Erwan Kerrien was examiner for the PhD defense of G. Pizaine.

## **8.3. Popularization**

- Members of the team participate on a regular basis, to scientific awareness and mediation actions:
  - Several team members participated to the "Fête de la Science 2012"
  - Gilles Simon chaired a "Café Scientifique" in Nancy on the subject of augmented reality.
  - Erwan Kerrien was an associate researcher to a MATh.en.JEANS workshop, and is a member of the local Scientific Mediation Committee.
- A transdisciplinarity project has been initiated with the IUFM de Lorraine (teacher training institute), in order to assess the relevance of using augmented reality in learning astronomy at primary school. A tangible user interface has been built to allow investigation of astronomical phenomena such as the periodical renewal of the seasons, the phases of the moon, or the regular succession of day and night. The interface has been experienced in two classrooms of 20 and 19 8-year-old and 10-year-old children and compared with traditional physical and virtual models. The questions that were investigated were: is the interface approachable enough to be used by children? Does it facilitate comprehension and learning of the phenomena by direct experience? Does it facilitate children concentration? Preliminary results tend to prove that the AR model allows a better conceptualization and favors learning for younger children. This work will be continued and may lead to one or several academic papers in the education field.
- We have designed and developed a software whose aim is to support students with learning computer programming. This software, named artEoz, enables a pedagogical view of the computer memory, dynamically changing while the user program is running. Using a nice visualization helps to understand the behavior on an object oriented program. This software concerns beginners as well experimented students thanks to its facilities to draw complex data structures. This software is licensed by the APP (French agency for software protection).

## **MORPHEO Team**

# **9. Dissemination**

## **9.1. Scientific Animation**

- Edmond Boyer was area chair of BMVC 2012.
- Edmond Boyer was a member of the program committees of: CVPR 2012, ECCV 2012, 3DIMPVT 2012, ACCV 2012, CVMP 2012 and the CDC4CV ECCV 2012 workshop.
- Edmond Boyer has been reviewing for the journals: IEEE PAMI, Springer IJCV and Elsevier CVIU.
- Edmond Boyer was president of two PhD committees, reviewer of one PhD thesis and he was examiner of three PhD thesis.
- Edmond Boyer gave invited talks at Kyoto University, MPI Sarbrucken, Hong Kong University and Marseille Luminy.
- Franck Hétroy has been reviewing for the journals: IEEE TVCG, Computer and Graphics, Computer-Aided Design, ReFIG, and for the conferences: Eurographics 2012.
- Jean-Sébastien Franco has reviewed for the following conferences: CVPR 2012, ECCV 2012, VR 2012, 3DIMPVT 2012, BMVC 2012.
- Jean-Sébastien Franco has reviewed for the following journals: CVIU
- Lionel Reveret was a committee member of EUROGRAPHICS 2012.
- Lionel Reveret has reviewed for the conferences: EUROGRAPHICS 2013, SIGGRAPH Asia 2012, Pacific Graphics'12, BMVC'12.
- Lionel Reveret has been reviewing for the journals: IEEE TVCG, Computer Graphics Forum.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

- E. Boyer, Master: synthèse d'images, 15h, M1 informatique, Université Joseph Fourier Grenoble.
- E. Boyer, Master: projet de programmation, 15h, M1 informatique - M1 MoSig, Université Joseph Fourier Grenoble.
- E. Boyer, Master: Introduction to Image Analysis, 15h, M1 MoSig, Université Joseph Fourier Grenoble.
- E. Boyer, Master: Computer Vision, 12h, M2R MoSig, Université Joseph Fourier Grenoble.
- F. Hétroy, Master: algorithmique et programmation orientée objets, 36h, Ensimag 2nd year, Grenoble INP.
- F. Hétroy, Master: modélisation et programmation C++, 27h, Ensimag 2nd year, Grenoble INP.
- F. Hétroy, Master: projets de spécialité image, 28h, Ensimag 2nd year, Grenoble INP.
- F. Hétroy, Master: introduction à la recherche en laboratoire, 3h, Ensimag 2nd year, Grenoble INP.
- F. Hétroy, Master: géométrie algorithmique, 9h, Ensimag 3rd year, Grenoble INP.
- F. Hétroy, Licence: algorithmique et structures de données, 36h, Ensimag 1st year, Grenoble INP.
- F. Hétroy, supervision of ENSIMAG 2A.
- J.S. Franco, Licence: Algorithmics, 56h, Ensimag 1st year, Grenoble INP
- J.S. Franco, License: C Project, 50h, Ensimag 1st year, Grenoble INP
- J.S. Franco, Master: Research Initiation, 3h, Ensimag 2nd year, Grenoble INP

J.S. Franco, Master: End of study project (PFE) Project Tutoring, 6h, Ensimag 2nd year, Grenoble INP

J.S. Franco, Master: 3D Graphics, 40.5h, Ensimag 2nd year, Grenoble INP

J.S. Franco, Master: Modelisation et programmation C++, 9h, Ensimag 2nd year, Grenoble INP

J.S. Franco, Licence: Introduction to Computer Vision, 27h, Ensimag 1st year, Grenoble INP

L. Reveret, Master: projets image, 30h, Ensimag 2nd year, Grenoble INP

L. Reveret, Master: Multidimensionnal Statistical Analysis, TP, 18h, Ensimag 2nd year, Grenoble INP

L. Reveret, Master: 3D Animation and Maya development, 18h, Ensimag 3rd year, Grenoble INP

L. Reveret, Master: Computer Graphics - Animation, 12h, Ensimag 3rd year, Grenoble INP

### 9.2.2. Supervision

PhD: Cédric Cagniart, *Motion Capture of Deformable Surfaces in Multi-View Studios*, Université de Grenoble, supervised by Edmond Boyer and Slobodan Ilic, 16/07/12, [1].

PhD: Estelle Duveau, *Motion Measurement of Small Vertebrates*, Université de Grenoble, supervised by Lionel Reveret and Edmond Boyer, 03/12/12, non publically released, patent pending.

PhD: Antoine Letouzey, *Modélisation 4D à partir de plusieurs caméras*, Université de Grenoble, supervised by Edmond Boyer, 30/07/12, [2].

PhD in progress : Benjamin Allain, *Geometry and Appearance Analysis of Deformable 3D shapes*, Université de Grenoble, started 01/10/2012, supervised by J.-S. Franco and E. Boyer.

PhD in progress : Benjamin Aupetit, *Géométrie différentielle discrète et analyse spectrale de maillages spatio-temporels*, Université de Grenoble, started 01/10/2011, supervised by Edmond Boyer and Franck Hétroy.

PhD in progress: Simon Courtemanche, *Caractérisation des Mouvements en Escalade Sportive par Mesure Video*, Université de Grenoble, started 01/10/2010, supervised by Lionel Reveret and Edmond Boyer.

PhD in progress : Abdelaziz Djelouah, *Gesture Interfaces*, Technicolor-Université de Grenoble, started 01/04/2011, supervised by J.-S. Franco, E. Boyer, F. Leclerc et P. Perez.

PhD in progress : Vagia Tsiminaki, *Appearance Modelling and Time Refinement in 3D Videos*, Université de Grenoble, started 01/10/2012, supervised by J.-S. Franco and E. Boyer.

## **PERCEPTION Team**

# **9. Dissemination**

## **9.1. Scientific Animation**

- Radu Horaud is a member of the following editorial boards:
  - advisory board member of the *International Journal of Robotics Research*,
  - associate editor of the *International Journal of Computer Vision*, and
  - area editor of *Computer Vision and Image Understanding*.
- Radu Horaud was a PC member of the IEEE International Conference on Humanoid Robotics (HUMANOIDS 2012), Osaka, Japan.
- Georgios Evangelidis was a PC member of the ACCV'12 Workshop on Color Depth Fusion for Computer Vision, Daejeon, Korea.
- Xavier Alameda-Pineda organized the D-META challenge in conjunction with the 2012 ACM/IEEE International Conference on Multimodal Interaction, Santa Monica, CA, USA.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

Doctorat : Radu Horaud, Data Analysis and Manifold Learning, 30 hours, Université de Grenoble, France

### **9.2.2. Supervision**

PhD: Avinash Sharma, Représentation, Segmentation et Appariement de Formes Visuelles 3D Utilisant le Laplacien et le Noyau de la Chaleur, Grenoble INP, 29 October 2012, Radu Horaud

PhD in progress: Kaustubh Kulkarni, Continuous Action Recognition, November 2009, Radu Horaud

PhD in progress: Jordi Sanchez-Riera, 3D Human-Robot Interaction with NAO, November 2009, Radu Horaud

PhD in progress: Antoine Deleforge, Sound-Source Separation and Localization, October 2010, Radu Horaud

PhD in progress: Xavi Alameda-Pineda, Audio-Visual Fusion for HRI, October 2010, Radu Horaud

PhD in progress: Maxime Janvier, Sound Recognition for Humanoids, November 2012, Radu Horaud

**PRIMA Project-Team**

## 9. Dissemination

### 9.1. Scientific Animation

James Crowley has served as co-organiser for the Dagstuhl seminar on Human Activity Recognition in Smart Environments, Dagstuhl Castle, Wadern Germany, 3-7 Dec 2012

James Crowley has served as co-organiser for the Symposium Performance Evaluation for Tracking and Surveillance, PETS 2013, IEEE Winter Meeting, Clearwater Florida, January 2013.

James Crowley has served as a member of the program committee for the following conferences:

ICRA 2012, IEEE International Conference on Robotics and Automation, Saint Paul, Minn, 14-18 May 2012.

ICPR 2012, 21st International Conference on Pattern Recognition, Tsukuba Science City, JAPAN, November 11-15, 2012

CVPR 2012, IEEE Conference on Computer VIision and Pattern Recognition, Providence Rhode-Island, 16-21 June 2012.

Sabine Coquillart has served as a member of the program committee for the following conferences:

GRAPP'2012 - International Conference on Computer Graphics Theory and Applications - Rome Italy, Feb. 2012.

VisGra 2012 - International Workshop on Computer Vision and Computer Graphics - Reunion Island, Feb. - March 2012.

IEEE 3DUI 2012 - IEEE 3D User Interfaces - OrangeCounty, USA, March 2012.

WSCG 2012 - International Conferences in Central Europe on Computer Graphics, Visualization and Computer Vision - Prague, Czech Republic, 2012.

SVR 2012 - Symposium on Virtual and Augmented Reality - Brazil , May 2012.

CASA 2012 - International Conference on Computer Animation and Social Agents, Singapore, May 2012.

CGI 2012 - Computer Graphics International, June 2012.

ISVC 2012 - International Symposium on Visual Computing - Rethymnon, Crete, Greece, July 2012.

CGVCVIP 2012 - IADIS Computer Graphics, Visualization, Computer Vision and Image Processing, Lisbon, Portugal, July 2012.

VSMM 2012 - 18th International Conference on Virtual Systems and Multimedia, Milan Italy, Sept. 2012.

ICVRV 2012 - International Conference on Virtual Reality and Visualization 2012, Ginhuangdao, China, September 2012.

JVRC 2012 - Joint Virtual Reality Conference on Virtual Reality of EGVE - ICAT - EuroVR, Madrid, Spain, October 2012.

GRAPHICON'2012 - International Conference on Computer Graphics and Vision - Moscow, Russia, October 2012.

EUROMED 2012 - International Conference on Cultural Heritage, Lemesos, Cyprus, Oct. Nov. 2012.

ISMAR 2012 - IEEE International Symposium on Mixed and Augmented Reality - Atlanta, Georgia, USA, Nov. 2012 (reviewer). CGAG 2012 - Computer Graphics, Animation and Game, Kangwondo, Korea, December 2012

Sabine Coquillart has served as a member of the Conference Committee and International Program Committee co-chair of IEEE VR 2012 - IEEE Virtual Reality, Orange County, CA, USA, March 2012. She has served as co-chair for the 2012 Joint Virtual Conference of EGVE - ICAT - EuroVR, Madrid, Spain, October 2012.

Sabine Coquillart is:

- Elected member of the EUROGRAPHICS Executive Committee.
- Member of the EUROGRAPHICS Working Group and Workshop board.
- Member of the 2012 Joint Virtual Reality Conference of EGVE -ICAT- EuroVR Best Papers Award Committee.
- Member of the steering committee for the ICAT conference - International Conference on Artificial Reality and Telexistence.
- Chairing the steering committee for the EGVE Working Group - EUROGRAPHICS Working group on Virtual Environments.
- Member of the FET pool of experts for European Commission funding under the framework of FET Open.

Sabine Coquillart did evaluation for the Eurographics PhD Awards Committee, 2012. She participated to the following Journal Editorial Boards:

- IEEE Transactions on Visualization and Computer Graphics: co-guest editor with S. Feiner and K. Kiyokawa of a special issue (vol. 18 n. 4, 2012).
- Journal of Virtual Reality and Broadcasting.
- Presence: Teleoperators & Virtual Environments Journal: co-Guest Editor for some papers of a special issue.
- Scientific World Journal.

Thierry Fraichard has served as an Associate Editor<sup>1</sup> for three international conferences:

- IEEE Int. Conf. on Robotics and Automation (ICRA), St Paul (US), May 2012.
- IEEE-RSJ Int. Conf. on Intelligent Robots and Systems (IROS), Vilamoura (PT), Oct. 2012.
- IFAC Symp. on Robot Control (SYROCO), Dubrovnik (HR), Sep. 2012.

He has reviewed an article for the Autonomous Robots journal and has served as an expert evaluator for the French Research Agency and the European Commission (FP7 framework). Along with James Kuffner from CMU, he has edited a special issue on guaranteed motion safety for the Autonomous Robots journal.

Patrick Reignier has served as a Program Committee member for the following conferences:

- Reconnaissance des Formes et Intelligence Artificielle (RFIA 2012), Lyon, France.
- 6th International Conference on Ubiquitous Computing and Ambient Intelligence (UCAmI 2012), Vitoria-Gasteiz, Spain.
- First Workshop on the Rights and Duties of Autonomous Agents (RDA2).
- Workshop Affect, Compagnon Artificiel, Interaction (WACAI 2012) Grenoble, France.

He has reviewed articles for:

- ACM Transactions on Interactive Intelligent Systems.
- Assistance and Service Robotics in a Human Environment workshop of IROS 2012.

He has been elected at the board of the Association Française pour l'Intelligence Artificielle (AFIA). He was a member of the selection committee for a Professor Position at the Joseph Fourier University and a member of the selection committee for a Professor Position at the Pierre et Marie Curie University.

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<sup>1</sup> An Associate Editor has to handle the review process of a set of papers, i.e. assign reviewers, assess each paper and write the review reports.

Dominique Vaufreydaz has served as a Program Committee member for the following conferences:

UBICOMM 2012, The Sixth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies, Barcelona, Spain, September 2012.

MTEL2012 at ISM2012, The Seventh IEEE International Workshop on Multimedia Technologies for E-Learning in conjunction with the IEEE International Symposium on Multimedia 2012, Irvine (CA), USA, December 2012.

He has reviewed articles for:

International Journal On Advances in Internet Technology, November 2012.

IEEE International Conference on Robotics and Automation, Karlsruhe, Germany, May 2013.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

Master: Sabine Coquillart, Virtual Reality and 3D User Interfaces, M2 MOSIG, Univ. of Grenoble, France.

Master: Sabine Coquillart, 3D User Interfaces and Augmented Reality, one day, M2 Numerical Modeling and Virtual Reality, Univ. of Laval, France.

Master: James Crowley is co-responsable for the Master of Science in Informatics at Grenoble (MoSIG).

Master: James Crowley teaches the MoSIG M1 Cours - Intelligent Systems.

Master: James Crowley teaches the MoSIG M2 Cours - Computer Vision.

Master: Alexandre Demeure, Introduction à l'IHM, 45h eqTD, M1 MIAGE, UJF, France.

Master: Alexandre Demeure, IHM avancées, 26h eqTD, M2 MIAGE, UJF, France.

Master: Alexandre Demeure, Introduction à l'IHM, 36h eqTD, M1 RICM4, Polytech, France.

Master: Alexandre Demeure, Architecture pour l'IHM, 26h eqTD, M2 RICM5, Polytech, France.

Master: Alexandre Demeure, IHM avancées, 15h eqTD, M2 RICM5, UJF, France.

Licence: Thierry Fraichard, Introduction à la robotique, 19h eqTD, L3 INFO, Univ. of Grenoble, France.

Licence: Thierry Fraichard, Projet Java, 20h eqTD, L3 MIAGE, Univ. of Grenoble, France.

Master: Thierry Fraichard, Introduction to Perception and Robotics, 23h eqTD, M1 MOSIG, Univ. of Grenoble, France.

Master: Thierry Fraichard, Projet Génie Logiciel, 36h eqTD, M1, ENSIMAG/Grenoble INP, France.

Master: Patrick Reignier, Projet Génie Logiciel, 55h eqTD, M1, ENSIMAG/Grenoble INP, France.

Licence: Patrick Reignier, Projet C, 20h eqTD, L3, ENSIMAG/Grenoble INP, France.

Master: Patrick Reignier, Programmation Internet, 18h eqTD, M1, ENSIMAG/Grenoble INP, France

Master: Patrick Reignier, Programmation C, 65h eqTD, M2, Université Joseph Fourier, France.

Master: Patrick Reignier, Produits Structuré (informatique pour la finance), 24h eqTD, M2, ENSIMAG/Grenoble INP, France.

Licence: Dominique Vaufreydaz, Traitement de texte et tableur pour l'économie, 48h eqTD ,L1, Grenoble II, France.

Licence: Dominique Vaufreydaz, Informatique appliquée à l'économie et à la gestion, enseignement à distance, Licence, Grenoble II, France.

Licence: Dominique Vaufreydaz, Pratique avancée du Tableur, 72 h eqTD, L3, Grenoble II, France.

Licence Professionnelle: Dominique Vaufreydaz, Enquêtes et traitement d'enquêtes avec le logiciel Sphinx, 11h eqTD, Licence pro Métiers de l'Emploi et de la Formation, 11h eqTD, Grenoble II, France.

Licence Professionnelle: Dominique Vaufreydaz, Administration Windows, 39.5h eqTD, Licence pro Métiers de l'Emploi et de la Formation, Grenoble II, France.

Master: Dominique Vaufreydaz, Enquêtes et traitement d'enquêtes avec le logiciel Sphinx, 11h eqTD, M2 Stratégies économiques du sport et du tourisme, Grenoble II, France.

Master: Dominique Vaufreydaz, Pratique avancée du Tableur, 22 h eqTD, M1 Économie internationale et stratégies d'acteurs, Grenoble II, France.

Master: Dominique Vaufreydaz, Mise à niveau Informatique pour l'économie, 22h eqTD, M2 Diagnostic économique d'entreprise, Grenoble II, France.

### **9.2.2. Supervision**

PhD : Mathieu Guillame-Bert, Learning Temporal Association Rules on Symbolic Time Sequences, Thesis defended December 2012, Thesis Director James Crowley

PhD : Antoine Meler, BetaSAC et OABSAC, Deux Nouveaux Echantillonnages Conditionnels pour RANSAC, Thesis defended January 2013, Thesis Director James Crowley

PhD in progress : Marion Decrouez, Modelisation et Localisation Visuelle dans les Environnement Dynamiques, Thesis Directed by Frédéric Devernay and James Crowley, Soutenance PrŽvu mars 2013,

PhD in progress : Evanthia Mavridou, Visual Invariants for Detection and Recognition, Thesis Director James Crowley

PhD in progress : Varun Jain, Perception of Human Emotions. Thesis Director James Crowley

PhD in progress : Julian Quiroga, Visual Perception of Gestures, Thesis Directed by Frédéric Devernay and James Crowley

PhD : Emeric Fontaine, Programmation d'espace intelligent par l'utilisateur final, UJF, July 2012, Joelle Coutaz et Alexandre Demeure.

PhD in progress : Dimitri Masson, Modèles et outils pour favoriser la créativité dans les premières phases de conception d'IHM, Gaelle Calvary et Alexandre Demeure

PhD: Alessandro Renzaglia, Distributed Control for Autonomous Helicopters, Univ. of Grenoble, France, April 2012, Thierry Fraichard and Agostino Martinelli.

PhD: Marco Polo Cruz Ramos, Design of Interaction Systems for Mobile Robots Collaboration; a Marsupial Robot Team for Search and Rescue Operations Case Study, Technológico de Monterrey, Mexico, December 2012, Jose-Luis Gordillo and Thierry Fraichard.

PhD: Rémi Barraquand, Designing Sociable Technologies, February 2nd 2012, Univ. of Grenoble, James Crowley and Patrick Reignier.

### **9.2.3. Juries**

Thierry Fraichard (reviewer), PhD, Jim Mainprice, Univ. of Toulouse (FR), December 2012.

Patrick Reignier (examiner), PhD, Charbel El Kaed, Univ. of Grenoble, January 13th. 2012

Patrick Reignier (reviewer), HDR, Cédric Buche, National Engineering School of Brest, France, February 10th 2012.

Patrick Reignier (examiner), PhD, Michelle Leonhardt Camargo, Universidade Federal do Rio Grande do Sul, Brasil, March 13th 2012.

Patrick Reignier (examiner), PhD, Issac Noé Garcia Garza, Grenoble University, June 18th 2012.

Patrick Reignier (examiner), PhD, Cyrille Martin, Univ. of Grenoble, October 4th 2012.

Patrick Reignier (examiner), PhD, Shirley Hoet, Pierre and Marie Curie University, Paris, France, December 17th 2012.

### **9.3. Invited Presentations**

Sabine Coquillart: First-person Visuo-haptic Environment - From Research to Applications, VISI-GRAPP%2012, Rome, Italy, February 2012.

Sabine Coquillart: Multimodal Virtual Environment: from Research to Applications, ISVC%2012, Rethymnon, Crete, Greece, July 2012.

Sabine Coquillart: Augmented Reality: State of the Art and Perspectives, Sharesight, Paris, December 2012.

Thierry Fraichard, Will the driver seat ever be empty?, LAAS Lab., Toulouse (FR), Dec. 2012.

Thierry Fraichard, The Difficulty of Safely Navigating Dynamic Environments, Ben Gurion Univ., Be'er Sheva (IL), Dec. 2012.

James Crowley, Perception for Social Interaction, Seminar de SFR Pole Cognition, Grenoble, 31 May 2012

James Crowley, A Cognitive Architecture for Situation Awareness, German-French Workshop on Perspectives on Cognitive Interaction and Technology, Bielefeld, Germany 4 - 6 June 2012

James Crowley, Intelligence Ambiante et l'Innovation Factory d'AmiQual4Home, Lundis de l'Innovation, SFR InnoVacs, 5 Nov 2012.

James Crowley, Intelligence Ambiante : Invasion Progressive de l'Informatique, InnoFond Seminar, Paris 29 November 2012.

James Crowley, Visual Recognition of Human Activity, in Dagstuhl seminar on Human Activity Recognition in Smart Environments, 3-7 Dec 2012

## SIROCCO Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

- C. Guillemot is associate editor of the Eurasip International Journal on Image Communication.
- C. Guillemot is member of the award committee of the Eurasip Image communication journal.
- C. Guillemot is member of the Selection and Evaluation Committee of the “Pôle de Compétitivité” Images and Networks of the Region of Ouest of France.
- C. Guillemot has been “Technical co-chair” of the Packet Video International Conference, Munich, May 2012.
- C. Guillemot is member as scientific expert of the CCRRDT (Regional Committee of Research and Technological Development) of the Brittany region.
- C. Guillemot is member of the committee in charge of the IEEE Brillouin-Glavieux award.
- C. Guillemot has been a member of the technical program committees of the international conferences EUSIPCO 2012, PV-2012 and PCS-212.
- C. Guillemot is member of the “bureau du Comité des Projets” as well as of the “commission personnels” in charge of the postdoc and delegation recruitments.
- C. Guillemot was a member of the selection committee for recruiting a Professor at Univ. Paris-Sud 11, section 63 (2012).
- C. Guillemot gave a keynote talk on data dimensionality reduction methods and application to different image processing problems at the International Symposium on Image, Video and Communications (ISIVC), Valenciennes, July 2012.
- C. Labit is the Scientific Board chairman of Rennes 1 University (since June 1st, 2008).
- C. Labit is president of the Rennes-Atalante Science Park and of the start-up incubator Emergys (since April, 2007).
- C. Labit is member of the GRETSI association board.
- C. Labit is member of the coordination group of the Allistene alliance devoted to ICT.
- O. Le Meur co-organized a special session about visual attention at the conference SPIE Photonics Europe 2012 (presentations are available on <http://www.irisa.fr/temics/staff/lemeur/visualAttention/specialsessions/>).
- A. Roumy is a member of the GRETSI association board.
- A. Roumy has been a member of the technical program committee of the international conference EUSIPCO 2012.
- A. Roumy was nominated a titular member of the National Council of Universities (CNU section 61, 2012-2015).
- A. Roumy is a local liaison officer for Eurasip.
- A. Roumy co-organized a two-day workshop on Sparse Models and Machine Learning in Rennes (15-16 Oct. 2012) (sponsored by the Signal, Image & Robotics Department of IRISA. In partnership with EURASIP, Inria & ORANGE LABS).

## 9.2. Patents and Standardization

The team contributes to the HEVC and 3DV standardization initiatives of the ITU/MPEG joint collaborative team on video coding (JCT-VC) [32], [34], [33], [36], [35].

Four patents have been filed jointly by Technicolor and Inria in the area of 2D video coding. Two more patents have been filed by Inria on motion and disparity prediction tools for 3D video coding.

## **9.3. Teaching - Supervision - Juries**

### **9.3.1. Teaching**

- Master: C. Guillemot, Image and video compression, 12 hours, M2 computer science, Univ. of Rennes 1, France.
- Master: C. Guillemot, Image and video compression, 12 hours, M2 SISEA, Univ. of Rennes 1, France.
- Master: L. Guillo, Multimedia Communication, 15 hours, M2 Network Engineering, Univ. of Rennes 1, France.
- Master: O. Le Meur, Selective visual attention, 13 hours, M2, Univ. of Paris 8, France.
- Master: O. Le Meur, Acquisition/Image Processing/Compression, 22 hours, M2 MITIC, Univ. of Rennes 1, France.
- Master: A. Roumy, Acquisition/Image processing/Compression, 16 hours, M2 MITIC, Univ. of Rennes 1, France.
- Master: A. Roumy, Magistère program, Information Theory, Computer science and telecommunications, 18 hours, Ecole Normale Supérieure de Cachan, Ker Lann campus, France.
- Engineering degree: C. Guillemot, Video communication, 16 hours, Télécom Lille 1, Villeneuve-d'Ascq, France.
- Engineering degree: L. Guillo, Video streaming, 3 hours, ESIR, University Rennes 1, France.
- Engineering degree: C. Labit, Entrepreneurship and innovation, 3 hours, ESIR, Rennes, France.
- Engineer degree: O. Le Meur, Image Processing, video analysis and compression, 54 hours, ESIR2, Univ. of Rennes 1, France.
- Engineer degree: O. Le Meur, Visual communication, 65 hours, ESIR3, Univ. of Rennes 1, France.
- Engineering degree: A. Roumy, Image processing and numerical analysis, 51 hours, ECAM Rennes, France.

### **9.3.2. Supervision**

#### **PhD & HdR**

- PhD : V. Jantet, Layered depth images for multi-view video coding, Univ. Rennes 1, 23rd Nov. 2012, C. Guillemot and L. Morin (INSA)
- PhD : J. Gautier, A Dynamic Visual Attention Model for 2D and 3D conditions; Depth Coding and Inpainting-based Synthesis for Multiview Videos, Univ. Rennes 1, 5th Dec. 2012, O. Le Meur and C. Guillemot
- PhD in progress : J. Aghaei Mazaheri, Sparse representations and dictionary learning for satellite image compression, Oct. 2011, C. Guillemot and C. Labit (contract with Astrium)
- PhD in progress : M. Bevilacqua, Image and video super-resolution using neighbor embedding algorithms, Feb. 2011, A. Roumy and C. Guillemot (Contract with Alcatel/Lucent)
- PhD in progress : S. Cherigui, Spatio-temporal scene modeling for video compression, Nov. 2009, C. Guillemot (Cifre contract with Technicolor)
- PhD in progress : B. Huang, Video compression with generalized lifting, Apr. 2012, C. Guillemot (Cifre contract with Orange)
- PhD in progress : D. Khaustova, Objective evaluation of 3D video quality, Dec. 2011, O. Le Meur (Cifre contract with Orange)
- PhD in progress : M. Ebdelli, Video inpainting for editing and loss concealment, Dec. 2010, C. Guillemot and O. Le Meur
- PhD in progress : M. Alain, Spatio-temporal linear embedding for epitome-based video compression, Oct. 2012, C. Guillemot (Cifre contract with Technicolor)

### **9.3.3. Juries**

- C. Guillemot has been member (president) of the jury of the HDR committee of:
  - G. Coatrieux, Telecom Bretagne, 9/07/2012
  - E. Vincent, Univ. Rennes 1, 23/11/2012
- C. Guillemot has been member (president) of the jury of the PhD committee of:
  - C. Greco, Telecom ParisTech, 6/07/2012
- C. Labit has been member (president) of the jury of the HDR committee of:
  - Marie Babel, INSA Rennes, 29/06/2012
- C. Labit has been examiner and member of the jury of the PhD committee of:
  - Lu Zhang-Ge, Univ d'Angers, 28/11/2012

## **9.4. Popularization**

- L. Guillo is advisor of secondary school pupils following the course "Informatique et Science du Numérique (ISN)" of the Lycée Jean Macé in Rennes, France.
- A. Roumy led a reading group on machine learning that was held weekly in the academic year 2011/12.
- Aline Roumy gave a lecture on video compression at the lycée Chateaubriand for highschool students (Terminale and classes préparatoires).
- Participation of Sirocco team members to the Rennes Science Festival (cultural dissemination of sciences).

**STARS Team**

## **8. Dissemination**

### **8.1. Scientific Animation**

#### **8.1.1. Conference Organization**

- In the framework of VANAHEIM project, Stars has organized a summer school which was held at Inria in October 2012, entitled “Human Activity and Vision Summer School”<sup>4</sup>. This summer school addressed the human activity or behaviour recognition, focusing dominantly on the video and audio modalities. In this context, the topics addressed ranged from low-level feature extraction (background subtraction, space-time interest points, tracklets) to active learning, as well as object detection (human, body), tracking (multi-object, multi-camera, audio-visual), behaviour cue extraction (body or head pose), crowd monitoring and supervised behaviour recognition (statistical and symbolic approaches). The summer school counted 26 outside participants, 19 Inria participants and 21 invited speakers. Most of the participants were PhD students, but master students and postdoctoral researchers were also registered.

#### **8.1.2. Journals**

- G. Charpiat reviewed for the journals TIP (Transactions on Image Processing), SIIMS (SIAM Journal on Imaging Sciences), RIA (Revue d’Intelligence Artificielle)
- Jean-Paul Rigault reviewed for the SoSym (Software and System Modeling) journal (Springer)
- M. Thonnat reviewed for Image and Vision Computing Journal
- F. Bremond was reviewer for the International Journal of Neural Systems and for the IEEE Pervasive Computing

#### **8.1.3. Conferences**

- G. Charpiat reviewed for the conferences CVPR (Computer Vision and Pattern Recognition) and SIGPRO (Signal Processing).
- Jean-Paul Rigault is a member of AITO (Association Internationale pour les Technologies Objets), the steering committee of several international conferences including ECOOP.
- M. Thonnat reviewed for ICPR Conference
- The conference paper entitled “Alzheimer’s patient activity assessment using different sensors” by C. Crispim et all has received the Best Paper Award in ISG\*ISARC 2012 conference in Eindhoven, Netherlands in June 2012.
- F. Bremond was Session chair and chairman of discussion panels at AVSS’12 conference
- F. Bremond was reviewer for the conferences CVPR’12-13, ICPR’12, ECCV’12, AVSS’12, PETS’12-13, Visage’12, IROS’12 Workshop, ICRA’13
- F. Bremond was program committee member of the CVPR 3nd Intl. Workshop on Socially Intelligent Surveillance and Monitoring (SISM 2012)
- F. Bremond was program committee member of the 2 ECCV 2012 workshops, International Workshop on Re-Identification (Re-Id 2012) and ARTEMIS 2012
- F. Bremond was program committee member of the IEEE Workshop on Applications of Computer Vision (WACV 2013)
- F. Bremond was program committee member of the Workshop Interdisciplinaire sur la Sécurité Globale (WISG 2013)

<sup>4</sup><http://www.multitel.be/events/human-activity-and-vision-summer-school/home.php>

#### **8.1.4. Invited Talk**

- F. Bremond was invited at the Gerontological Workshop organized by Universitas Tarumanagara in Jakarta on the 28-29 September 2012.
- F. Bremond was invited at the French American Biotech Symposium FABS 2012, invited by EUROBIOMED and French Embassy in US, Nice on the 25-26 October 2012,
- F. Bremond was invited at the IA (Innovation Alzheimer) Workshop 2012: Intersection between ICT & Health – defining guidelines on October 30th in Monaco, France.
- F. Bremond was invited at the International Workshop on Human Behavior Understanding (HBU'2012) held in conjunction with IROS'2012 in Algarve, Portugal, October 2012.

#### **8.1.5. Advisory Board**

- M. Thonnat is Scientific Advisory Board member 2010 -2013 European project Fish4Knowledge. on Intelligent Information Management Challenge 4: Digital Libraries and Content (<http://www.fish4knowledge.eu>).
- M. Thonnat is Scientific Board member of the National Reference Center “Santé”, Dependance et Autonomie since 2010.
- M. Thonnat is Scientific Board member of Ecole Nationale des Ponts since 2008
- F. Bremond is Scientific Board member of Fondation Médéric Alzheimer: European Dementia Biomedical Outlook, April and October 2012.
- F. Bremond is Scientific Board member of Workshop Interdisciplinaire sur la Sécurité Globale (WISG)
- F. Bremond is Member of the advisory Boards of the “Éthique, technologie et maladie d’Alzheimer ou apparentée” EREMA

#### **8.1.6. Expertise**

- M. Thonnat participated to the evaluation of ANR Tecsan proposals, award committee member for the best scientific project at Ecole Polytechnique Paris

### **8.2. Teaching - Supervision - Juries**

#### **8.2.1. Teaching**

Master : François Brémond, Video Understanding Techniques at the Human Activity and Vision Summer school, Sophia-Antipolis, 3h., Oct 2012, FR;

Master : Annie Ressouche, Critical Systems and Vérification. Application to WComp Platform, 10h, M2, Polytechnic School of Nice Sophia Antipolis University, FR;

Jean-Paul Rigault is Full Professor of Computer Science at Polytech'Nice (University of Nice): courses on C++ (beginners and advanced), C, System Programming, Software Modeling.

#### **8.2.2. Supervision**

PhD & HdR

PhD : Slawomir Bak, People Detection in Temporal Video Sequences by Defining a Generic Visual Signature of Individuals, Nice Sophia Antipolis University, 5th July 2012, François Brémond [28]

PhD : Duc Phu Chau, Object Tracking for Activity Recognition, Nice Sophia Antipolis University, 30th March 2012 , François Brémond and Monique Thonnat [29];

PhD : Guido-Tomas Pusiol, Learning Techniques for Video Understanding, Nice Sophia Antipolis University, 31st May 2012, François Brémond [30];

PhD in progress: Julien Badie, People tracking and video understanding, October 2011, François Brémond;

PhD in progress : Piotr Bilinski, Gesture Recognition in Videos, March 2010, François Brémond;  
 PhD in progress : Carolina Garate, Video Understanding for Group Behaviour Analysis, August 2011, François Brémond;

PhD in progress : Ratnesh Kumar, Fiber-based segmentation of videos for activity recognition, January 2011, Guillaume Charpiat and Monique Thonnat;

PhD in progress : Rim Romdhame, Event Recognition in Video Scenes with Uncertain Knowledge, March 2009, François Brémond and Monique Thonnat;

PhD in progress : Malik Souded : Suivi d'Individu à travers un Réseau de Caméras Vidéo, February 2010, François Brémond ;

### **8.2.3. Juries**

- G. Charpiat reviewed applications to a Cordi S PhD grant as well as a proposal to the project call Digeo.
- M.Thonnat was jury member for the PhD defence of Edouard Auvinet, Montreal University, the 14th June 2012.
- A. Ressouche was jury member for the PhD defence of Salma Zouaoui-Elloumi, Mines Paris Tech, in July 2012.
- F. Bremond was jury member for the PhD defence of Cyrille Mignot, GIPSA Lab, Univ. P. Mendes-France, Grenoble, 17 January 2012.
- F. Bremond was jury member for the PhD defence of Carmelo Velardo, EURECOM, 23rd April 2012.
- F. Bremond was jury member for the Mid-term PhD defence of Usman Farrokh Niaz, EURECOM, 2nd May 2012.
- F. Bremond was jury member for the Mid-term PhD defence of Claudiu Tanase, Mid-term defense, EURECOM, 2nd May 2012.
- F. Bremond was jury member for the Mid-term PhD defence of Alban Meffre, Mid-term defense, Télécom Physique Strasbourg (ex ENSPS) - LSIIT CNRS, June 5 2012.
- F. Bremond was jury member for the Mid-term PhD defence of Hajar Fradi, Mid-term defense, EURECOM, 29th October 2012.
- F. Bremond was jury member for the PhD defence of Sun Lin, Université Pierre & Marie Curie (UPMC) - TELECOM SudParis, 12th Dec 2012.
- F. Bremond was jury member for the HDR defence of Christian Wolf, Université de Lyon, INSA-Lyon, LIRIS CNRS, Team Imagine and M2Disco, 10th December 2012.

## **8.3. Popularization**

- G. Charpiat takes part in Mastic, a local scientific animation committee (Médiation et Animation Scientifique dans les MAthématiques et dans les Sciences et Techniques Informatiques et des Communications) and attended a media training.

### **8.3.1. Press Release**

- F. Bremond has a Press interview on Assisted Living in February 2012 with Le Monde, Le Figaro, Les Echos, Notre Temps, Le Quotidien du Médecin, RFI, France Culture, La Croix, France Inter.
- Stars article in Le Monde on the 10th of March on "Vidéosurveillance : Trop de caméras pas assez d'yeux ?".
- F. Bremond has an Interview on Assisted Living on the 21st of March 2012 with France Inter,
- F. Bremond has an Interview on CobTek for the ITV Inria Web Site (by TEchnoscope company) in April 2012.
- Dem@Care has been mentioned in the EU eHealth Newsletters, firstly in March 2012 to announce the launch of the project, secondly in August 2012 to announce the IA (Innovation Alzheimer) Workshop 2012.

**TEXMEX Project-Team**

## 9. Dissemination

### 9.1. Scientific Animation

- Laurent Amsaleg
  - was a program committee member of CBMI 2012;
  - was a program committee member of ICMR 2012;
  - was a program committee member of MMM 2012;
  - was a program committee member of BDA 2012;
  - was a program committee member of ICME 2012;
  - was a program committee member of MMM 2013;
  - was a member of the “commission de spécialistes, ISTIC, University Rennes 1”;
  - was a reviewer for Advances in Multimedia Journal.
- Vincent Claveau
  - was a program committee member of the Hybrid methods in NLP Workshop, collocated with EACL2012, Avignon, France;
  - was a program committee member of TALN’12 (18<sup>e</sup> conférence nationale Traitement automatique des langues naturelles), Grenoble, France;
  - was a program committee member of IEEE/WIC/ACM Web Intelligence (WI-IAT) conference, Macau, China;
  - was a program committee member of Conférence en Recherche d’Information et Applications, CORIA 2012, Bordeaux, France;
  - is a member of the editorial board of the journal TAL, Traitement Automatique des Langues;
  - was a reviewing committee member for the journal BioInformatics;
  - is a board member of Association pour le Recherche d’Information et Application (ARIA) and was implied in the organization of the CORIA 2012 conference and the ERIA 2012 summer school
  - was a selection committee member in Univ. Paris 11 and Univ. Paris 13.
- Teddy Furon
  - was an associate editor of Elsevier Digital Signal Processing, 2012;
  - was an associate editor of IEEE Trans. on Information Forensics and Security, 2012;
  - was a member of the technical committee of IEEE Information Forensics and Security sub-society, 2012.
  - was a program committee member of Information Hiding 2012, Berkeley, CA, USA;
  - was a program committee member of CMS 2012, Canterbury, UK;
  - was a program committee member of IEEE WIFS 2012, Tenerife, Spain;
- Guillaume Gravier
  - was a program committee member of the Journées d’étude sur la Parole, 2012;
  - was a technical program committee member of Workshop on Content-based Multimedia Indexing, 2012;

- was a technical program committee member of IEEE Intl. Conf. on Multimedia and Exhibition, 2012;
  - was a program committee member of the ECCV Workshop on Information Fusion in Computer Vision for Concept Recognition, 2012;
  - founded in 2012 the Special Interest Group of the Intl. Speech Communication Association, Speech and Language in Multimedia (SLIM), which he is leading;
  - is vice-president of the Association Francophone de la Communication Parlée, the French-speaking Speech Communication Association, also a regional group of the Intl. Speech Communication Association;
  - was a program committee member of the ACM Multimedia 2012 Workshop on Multimedia Analysis For Ecological Data;
  - was a technical program committee member of the ACM Worskhop on Audio and Multi-media Methods for Large-Scale Video Analysis, 2012;
  - was a program committee member of the 2012 5th International Congress on Image and Signal Processing;
  - was appointed as an expert for the ANR CONTINT program;
  - is a member of the Interspeech 2013 Steering Committee, in charge of the conference program coordination;
  - was the scientific leader of the national evaluation initiative ETAPE;
  - was a member of the organizing committee of the MediaEval 2012 evaluation benchmark;
  - has served as a reviewer for several major journals in the speech and multimedia domains.
- Patrick Gros
    - was a program committee member of the Fourth International Conference on Creative Content Technologies, Content 2012, Nice, France;
    - was a program committee member of Conférence en Recherche d'Information et Applications, CORIA 2012, Bordeaux, France;
    - was a Technical Program Committee member of the 20th European Signal Processing Conference Eusipco 2012, Bucharest, Romania;
    - was a program committee member of the 18th Conférence en Reconnaissance des Formes et Intelligence Artificielle, RFIA 2012, Lyon, France;
    - was appointed as scientific officer of the Inria research center of Rennes – Bretagne Atlantique;
    - was member of the scientific board of Université européenne de Bretagne;
    - was member of the Evaluation Board of Inria.
  - Hervé Jégou
    - has co-organized a tutorial on Large-Scale Visual Recognition at CVPR'2012;
    - was a program committee member and keynote speaker at the Workshop on Web-scale Vision and Social Media, in conjunction with ECCV'2012;
    - was area chair for the BMVC'2012 conference;
    - was a program committee member of CVPR'2012;
    - was a program committee member of ECCV'2012;
    - was a program committee member of CBMI'2012;
    - was a program committee member of MMM'2012;
    - was a program committee member of RFIA'2012;

- was appointed as an expert for the ANR CONTINT'2012 project call and for the ANRT in 2012;
- was a member of the selection committee for associate professors at ENSEA.
- Ewa Kijak
  - is head of the Image engineering track of ESIR (Ecole Supérieure d'Ingénieur de Rennes, associated with University of Rennes 1).
- François Poulet
  - co-organized and edited, together with B. Le Grand, the proceedings of the 10<sup>th</sup> Workshop Visualisation et Extraction de Connaissances co-located with Extraction et Gestion de Connaissances, (EGC'12), Bordeaux, France, Jan. 2012.
  - was a program committee member of KDIR'12, International Conference on Knowledge Discovery and Information Retrieval, Barcelona, Spain, Oct. 2012;
  - was a program committee member of KICSS'12, International Conference on Knowledge Information and Creativity Support Systems, Melbourne, Australia, Nov. 2012;
  - was a program committee member of VINCI'12, Visual INformation Communications International, Hangzhou, China, Sept. 2012;
  - was a program committee member of AusDM'12, Australasian Data Mining Conference, Sydney, Australia, Dec. 2012;
  - was a program committee member of EGC'12, Extraction et Gestion de Connaissances, Bordeaux, France, Jan. 2012;
  - was a reviewer of ISCAS 2013, IEEE International Symposium on Circuits and Systems, Beijing, China, May 2013;
  - was a reviewer of DAMI, Journal on Data Mining and Knowledge Discovery, Springer;
  - was a reviewer of Advances in Knowledge Discovery and Management, Springer;
  - was co-organizer of the 10th workshop Visualisation et Extraction de Connaissances, (AVEC-EGC'12), Bordeaux, France, January 2012.
- Christian Raymond
  - is a member of the editorial board of the [e-journal "Discours"](#);
  - was a reviewing committee member of Interspeech (13th Annual Conference of the International Speech Communication Association);
  - was a reviewing committee member of ICMLA (The tenth International Conference on Machine Learning and Applications).
- Pascale Sébillot
  - was a member of the program committee of LREC 2012 (8th international conference on Language Resources and Evaluation);
  - was a member of the program committee of TALN 2012 (19e conférence francophone Traitement automatique des langues naturelles);
  - is an editorial committee member of the Journal TAL (Traitement automatique des langues; since July 2009);
  - was a member of the reading committee of several issues of the Journal TAL (Traitement automatique des langues) in 2012.

## **9.2. Teaching - Supervision - Juries**

### **9.2.1. Teaching**

- Doctorate: H. Jégou, Tutorial at CVPR'12, 3h, Providence, USA

- Doctorate: H. Jégou, Tutorial at BMVC'12, 2h, Surrey, UK
- Doctorate: H. Jégou, Lecture at SSMS'12 summer school, 2h, Santorini, Greece
- Master: L. Amsaleg, High dimensional Indexing, 14h, M2R, University of Rennes 1
- Master: L. Amsaleg, Database Tuning, 8h, ENSAI
- Master: G. Gravier, Data analysis and stochastic modeling, 27h, M2, University of Rennes 1
- Master: V. Claveau, Multimedia Indexing, 12h, M2, ISTIC, University of Rennes 1, Rennes
- Master: V. Claveau, Indexing and multimedia databases, 15h, M2, ENSSAT
- Master: V. Claveau, Natural Language Processing, 36h, M2, Univ. Rennes 1
- Master: V. Claveau, Data-Based Knowledge Acquisition 2: Symbolic Methods, 27 hours, M1, INSA de Rennes
- Master: V. Claveau, Symbolic and sequential data, 10h, M2R, University of Rennes 1
- Master: P. Gros, Mathematics workshop, 8h, ISTIC, University of Rennes 1
- Master: E. Kijak, Image analysis and classification, 30h, M1, ESIR
- Master: E. Kijak, Image processing, 64h, M1, ESIR
- Master: E. Kijak, Supervised learning, 16h, M2R, University Rennes 1
- Master: E. Kijak, Computer Vision, 15h, M2, ESIR
- Master: E. Kijak, Indexing and multimedia databases, 15h, M2, ENSSAT
- Master: E. Kijak, Digital Documents Indexing and Retrieval, 26h, M2, University Rennes 1
- Master, François Poulet is in charge of the Master in computer science (2<sup>nd</sup> year), MITIC, Computer Science Methods and Information and Communication Technologies, ISTIC, University of Rennes 1
- Master: F. Poulet, Managing Large Collections of Digital Data, 10h, M2R, ISTIC, University of Rennes 1
- Master: F. Poulet, Introduction to Data Mining, 15h, M2P, ISTIC, University of Rennes 1
- Master: F. Poulet, Mining Symbolic Data, 25h, M2P, ISTIC, University of Rennes 1
- Master: F. Poulet, Applications and Problem Solving, 10h, M2P, ISTIC, University of Rennes 1
- Master: F. Poulet, Learning Methods for Multimedia Data, 26h, M2P, ISTIC, University of Rennes 1
- Master: P. Sébillot, Advanced Databases and Modern Information Systems, 70 hours, M2, INSA de Rennes,
- Master: P. Sébillot, Data-Based Knowledge Acquisition 2: Symbolic Methods, 18 hours, M1, INSA de Rennes
- Licence: G. Gravier, Databases, 9h, L3, Université de Rennes 1
- Licence: G. Gravier, Databases, 27h, L2, INSA de Rennes
- Licence: G. Gravier, Programming in C, 8h, L3, INSA de Rennes,
- Licence: H. Jégou, Databases, 40h, L2, INSA de Rennes

### **9.2.2. Supervision**

- PhD : Juan David Cruz-Gomez, Socio-semantic Networks Algorithm for a point of View Based Visualization of On-line Communities. December 10<sup>th</sup> 2012, Cécile Bothorel (Télécom Bretagne), François Poulet.
- PhD: Thanh-Toan Do, Security Analysis of Copy Image Detection systems based on SIFT Descriptors, University Rennes 1, September 27<sup>th</sup> 2012, Laurent Amsaleg, Ewa Kijak, Teddy Furion.

- PhD : Ali Reza Ebadat, Toward robust information extraction models for multimedia documents, INSA de Rennes, October 17<sup>th</sup> 2012, Vincent Claveau and Pascale Sébillot
- PhD in progress: Petra Bosilj, Video description and retrieval, Started October 2012, Ewa Kijak and Sébastien Lefèvre (in collaboration with IRISA SEASIDE team)
- PhD in progress: Mohammed-Haykel Boukadida, Automatic video summarization based on constraint programming, January 2012, Patrick Gros, Sid-Ahmed Berrani (Orange Labs, Rennes)
- PhD in progress : Thanh Nghi Doan, Image Classification, Started November 2010, François Poulet
- PhD in progress: Khaoula Elagouni, Automatic image and video indexing using automatic recognition of embedded texts and natural language processing, October 10, 2009, Pascale Sébillot, Christophe Garcia (LIRIS, Lyon) and Franck Mamalet (Orange Labs, Rennes)
- PhD in progress: Julien Fayolle, Information retrieval in TV streams, Started October 2009, Fabienne Moreau, Christian Raymond, Guillaume Gravier, Patrick Gros.
- PhD in progress: Gylfi Gudmundsson, Towards parallel and distributed CBIR systems, started April 2010, Laurent Amsaleg
- PhD in progress: Mihir Jain, Video description and retrieval, started February 2011, Hervé Jégou, Patrick Gros and Sébastien Bouthemy
- PhD in progress: Ludivine Kuznik, Structuring and navigating documentary archives, started April 2011, Guillaume Gravier and Pascale Sébillot, in collaboration with Institut National de l'Audiovisuel (Jean Carrive)
- PhD in progress: Abir Ncibi, Structure learning of TV streams, started October 2011, Vincent Claveau, Guillaume Gravier, Patrick Gros, Emmanuelle Martienne
- PhD in progress: Cédric Penet, Multimodal content based analysis for video on demand, started September 2010, Guillaume Gravier and Patrick Gros, in collaboration with Technicolor
- PhD in progress: Bingqing Qu, Structure discovery of TV programs from an homogeneous collection, started October 2012, Guillaume Gravier in collaboration with Institut National de l'Audiovisuel
- PhD in progress: Anca Roxana Simon, Hierarchical semantic structuring of video collections, started October 2012, Guillaume Gravier and Pascale Sébillot
- PhD in progress: Stefan Ziegler, Landmark driven speech recognition, started September 2010, Guillaume Gravier

### **9.2.3. Juries**

- Patrick Gros, HDR, Benoît Huet (université de Nice-Sophia Antipolis)
- Guillaume Gravier, PhD, Mickaël Rouvier (LIA);
- Guillaume Gravier, PhD, Pierre Gotab (LIA);
- Guillaume Gravier, PhD, Sylvain Raybaud (LORIA);
- Guillaume Gravier, PhD, Christian Gillot (LORIA);
- Hervé Jégou, PhD, Safadi Bahjat (LIG);
- Ewa Kijak, PhD, Muneeb Ullah (Inria);
- Pascale Sébillot, HDR, Ludovic Tanguy (Toulouse university);
- Pascale Sébillot, PhD, Clémentine Adam (Toulouse university);
- Pascale Sébillot, PhD, Gert-Jan Poulsse (Katholieke Universiteit (KU) Leuven, Belgium) ;

### **9.3. Invited talks and lectures**

- Vincent Claveau: Invited speaker at the ASAP off-site seminar, Quiberon, France, May 2012
- Vincent Claveau: Invited speaker at the Cordial seminar, December 2012

- Hervé Jégou: Keynote speaker at the ECCV workshop on web scale vision and social media, Firenze, Italy, October 2012
- Hervé Jégou: Lecturer at the CVPR conference "Large scale object recognition" tutorial (selected), Providence, USA, June 2012
- Hervé Jégou: Invited lecturer at Summer School on Social Media Modeling and Search (SSMS'12), Thira, Greece, September 2012
- Hervé Jégou: Invited tutorial at the BMVC conference, Surrey, UK, September 2012
- Hervé Jégou: Invited talk at Oxford University, Visual Geometry Group, UK, September 2012
- Hervé Jégou: Invited talk at the National Institute of Technology (NII), Tokyo, Japan, April 2012
- Hervé Jégou: Invited talk at Technicolor Palo Alto, California, USA, August 2012
- Hervé Jégou: Invited talk at the ETIS laboratory/ENSEA, Cergy-Pontoise, France, December 2012

## 9.4. Popularization

- Sébastien Campion and Teddy Furon: Participation to *Fête de la Science*, October 12-13, 2012;
- The image search technique based on Pqcodes [83] was popularized in the journal **Futura Sciences**;
- The Texmix demonstration was presented at Futur en Seine.

## WILLOW Project-Team

# 9. Dissemination

## 9.1. Scientific Animation

- + Conference and workshop organization
  - K. Alahari, Co-organizer of the Workshop on Higher-Order Models and Global Constraints in Computer Vision in Computer Vision at ECCV 2012. <https://sites.google.com/a/ttic.edu/eccv-2012-workshop-hipot/>
  - I. Laptev, J. Sivic, Co-organizers of the First International Workshop on Action recognition and Pose Estimation in Still Images at ECCV 2012. <http://vision.stanford.edu/apsi2012>
  - A. Zisserman, Co-organizer of the PASCAL Visual Object Classes Challenge 2012 (VOC2012). <http://pascallin.ecs.soton.ac.uk/challenges/VOC/voc2012/>
  - A. Zisserman, Co-organizer of the PASCAL VOC 2012 workshop at ECCV 2012. <http://pascallin.ecs.soton.ac.uk/challenges/VOC/voc2012/workshop/index.html>
- + Editorial Boards
  - International Journal of Computer Vision (I. Laptev, J. Ponce, J. Sivic and A. Zisserman).
  - Image and Vision Computing Journal (I. Laptev).
  - Foundations and Trends in Computer Graphics and Vision (J. Ponce, A. Zisserman).
  - IEEE Transactions on Pattern Analysis and Machine Intelligence (K. Alahari, co-guest editor of a special issue).
- + Area Chairs
  - European Conference on Computer Vision (ECCV), 2012 (I. Laptev, J. Ponce, J. Sivic, A. Zisserman).
  - IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2013 (I. Laptev, J. Ponce, J. Sivic).
  - IEEE International Conference on Computer Vision (ICCV), 2013 (J. Sivic)
- + Program Committees
  - IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2012 (M. Cho, I. Laptev, J. Sivic, A. Zisserman).
  - IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2013 (K. Alahari, M. Cho, V. Delaitre, O. Duchenne, A. Joulin, V. Kantorov).
  - European Conference on Computer Vision (ECCV), 2012 (K. Alahari, M. Cho, V. Delaitre, O. Duchenne, A. Joulin).
  - Asian Conference on Computer Vision (ACCV), 2012 (K. Alahari).
  - Indian Conference on Computer Vision and Pattern Recognition (ICVGIP), 2012 (K. Alahari).
  - IEEE International Conference on Robotics and Automation (ICRA), 2012 (J. Sivic)
  - International Conference on Neural Information Processing Systems (NIPS), 2012 (K. Alahari, A. Joulin, I. Laptev, J. Sivic).
  - IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2012 (J. Sivic).
  - ACM International Conference on Computer Graphics and Interactive Techniques (SIGGRAPH), 2012 (J. Sivic).
  - ACM International Conference on Multimedia Retrieval (ICMR), 2012 (J. Sivic)
  - International Conference on Artificial Intelligence and Statistics (AISTATS), 2012, 2013 (A. Joulin).
  - International Conference on Machine Learning (ICML), 2013 (A. Joulin).
  - A. Zisserman, reviewer for ERC grant applications.

- + Prizes and distinctions:
  - Sr. Member, Institut Universitaire de France (J. Ponce).
  - Inria Prime d'excellence scientifique (I. Laptev, J. Sivic).
  - ENS Prime d'excellence scientifique (J. Ponce).
- + Other:
  - PostDoc selection committee, Inria Paris, 2012 (I. Laptev)
  - Commission de Développement Technologique, Inria Paris, 2012 (J. Sivic)
  - Director, ENS Department of Computer Science (J. Ponce)

## 9.2. Teaching - Supervision - Juries

### 9.2.1. Teaching

Licence : J. Ponce, "Introduction to computer vision", L3, Ecole normale supérieure, 36h.

Licence : M. Pocchiola and J. Ponce, "Geometric bases of computer science", L3, Ecole normale supérieure, 36h.

Master : I. Laptev, J. Ponce and J. Sivic (together with C. Schmid, Inria Grenoble), "Object recognition and computer vision", M2, Ecole normale supérieure, and MVA, Ecole normale supérieure de Cachan, 36h.

Doctorat : I. Laptev, J. Ponce, J. Sivic and A. Zisserman were speakers at the Inria Visual Recognition and Machine Learning Summer School <http://www.di.ee.willow/events/cvml2012/>, Grenoble, 15h.

Doctorat : I. Laptev, speaker at the AERFAI Summer School on pattern recognition in multimodal human interaction, Vigo, Spain, 4h.

Doctorat : I. Laptev, speaker at the Human Activity and Vision Summer School, Inria Sophia-Antipolis, France, 2h.

### 9.2.2. Supervision

PhD : Oliver Whyte, "Removing Camera Shake Blur and Unwanted Occluders from Photographs" [5], École normale supérieure de Cachan, defended on March 15, 2012, J. Ponce, J. Sivic and A. Zisserman.

PhD : Y-Lan Boureau, "Learning Hierarchical Feature Extractors For Image Recognition" [1], New York University, September 2012, J. Ponce.

PhD : Muhammad Muneeb Ullah, "Supervised Statistical Representations for Human Action Recognition in Video" [4], Université de Rennes 1, defended on October 23, 2012, I. Laptev and P. Pérez.

PhD : Olivier Duchenne, "Non-rigid alignment methods for object recognition" [2], École normale supérieure, defended on November 29, 2012, J. Ponce.

PhD : Armand Joulin, "Convex optimization for cosegmentation" [3], École normale supérieure, defended on December 17, 2012, F. Bach and J. Ponce.

PhD in progress : Louise Benoît, started in 2009, J. Ponce.

PhD in progress : Piotr Bojanowski, "Learning to annotate dynamic video scenes", started in 2012, I. Laptev, J. Ponce, C. Schmid and J. Sivic.

PhD in progress : Florent Couzinié-Devy, started in 2009, J. Ponce.

PhD in progress : Vincent Delaitre, "Modeling and recognition of human-object interactions", started in 2010, I. Laptev and J. Sivic.

PhD in progress : Warith Harchaoui, "Modeling and alignment of human actions in video", started in 2011, I. Laptev, J. Ponce and J. Sivic.

PhD in progress : Vadim Kantorov, "Large-scale video mining and recognition", started in 2012, I. Laptev.

PhD in progress : Guillaume Seguin, "Human action recognition using depth cues", started in 2010, J. Sivic and I. Laptev.

PhD in progress : Marc Sturzel, started in 2008, J. Ponce, A. Zisserman.

### **9.2.3. Juries**

+ PhD thesis committee:

- Roland Angst, ETH Zurich, 2012 (J. Ponce).
- Adrien Gaidon, Inria Rhone-Alpes, 2012 (I. Laptev).
- Pyry Matikainen, CMU, 2012 (I. Laptev).
- Olivier Duchenne, ENS Ulm, 2012 (J. Ponce).
- Armand Joulin, ENS Ulm, 2012 (J. Ponce).
- Gaurav Sharma, University of Caen, 2012 (J. Ponce).
- Oliver Whyte, ENS Cachan, 2012 (J. Ponce, J. Sivic, A. Zisserman).
- Muhammad Muneeb Ullah, ENS Cachan, 2012 (I. Laptev).

+ HDR thesis committee:

- Florent Perronnin, Université Joseph Fourier. (J. Ponce).

+ Other:

- "Jury prix Gilles Kahn" for best French PhD in computer science in November 2012 (J. Ponce).

## **9.3. Inria Visual Recognition and Machine Learning Summer School 2012**

<http://www.di.ens.fr/willow/events/cvml2012>

I. Laptev and J. Sivic (together with C. Schmid, Inria Grenoble) co-organized a one week summer school on Visual Recognition and Machine Learning. The summer school, hosted by Inria Grenoble, attracted 181 participants from 34 countries (22% France / 48% Europe / 30% other countries (including Australia, Brazil, Canada, China, India, Iran, Israel, Japan, Malaysia, Mexico, Saudi Arabia, Singapore, South Korea, Turkey and USA)), and included Master students, PhD students as well as Post-docs and industrial participants. The summer school provided an overview of the state of the art in visual recognition and machine learning. Lectures were given by 14 speakers (6 USA, 1 UK, 1 Austria, 6 Inria / ENS), which included top international experts in the area of visual recognition (D. Forsyth, UIUC, USA; M. Hebert and A. Efros, CMU, USA; D. Ramanan, UC Irvine, USA, A. Torralba and A. Oliva, MIT, USA; A. Zisserman, Oxford, UK / WILLOW). Lectures were complemented by practical sessions to provide participants with hands-on experience with the discussed material. In addition, a poster session was organized for participants to present their current research.

The Fourth summer school in this series is currently in preparation for 2013 to be hosted by ENS Ulm and organized jointly by ENS and Inria Paris.

## 9.4. Invited presentations

- K. Alahari, Oxford Univ., Oxford, UK, Host: A. Zisserman, Sept. 2012.
- I. Laptev, 3rd AFCV Int. Workshop on Recent Trends in Computer Vision, Osaka, Japan, Jan. 2012.
- I. Laptev, 10th Workshop on Content Based Multimedia Indexing, Annecy, France, June 2012.
- I. Laptev, Oxford Univ., Oxford, UK, Host: A. Zisserman, Sept. 2012.
- I. Laptev, First Croatian Workshop on Computer Vision, Zagreb, Croatia, Sept. 2012.
- I. Laptev, 3rd IST Austria Symposium on Computer Vision and Machine Learning, Vienna, Austria, Oct. 2012.
- I. Laptev, Carnegie Mellon University, USA, Host: A. Efros, November 2012.
- J. Ponce, 2nd ACCV Workshop on e-Heritage, Daejeon, South Korea, Nov. 2012.
- J. Ponce, ETRI, Daejeon, South Korea, Nov. 2012.
- J. Ponce, "Let's imagine the future", Inria Rennes, France, Nov. 2012.
- J. Sivic, Google, USA, Hosts: H. Adam and H. Neven, August 2012
- J. Sivic, UC Berkeley, USA, Host: J. Malik, August 2012
- J. Sivic, Simon Fraser University, Canada, Host: G. Mori, August 2012
- J. Sivic, GdR ISIS workshop, Telecom ParisTech, Host: F. Lafarge, October 2012
- J. Sivic, First Int. Workshop on Visual Analysis and Geo-Localization of Large-Scale Imagery, ECCV 2012, October 2012.
- J. Sivic, Int. Workshop on Search Computing, Brussels, Host: A. Joly, September 2012.
- J. Sivic, Carnegie Mellon University, USA, Host: A. Efros, December 2012.

## 9.5. Popularization

- The work "What Makes Paris Look like Paris" on the automatic mining of visual architectural elements (Doersch *et al.* SIGGRAPH [6]) has received broad press coverage including magazines [The Wall Street Journal](#) and [NewScientist](#).
- The Pompeii project was featured in the special issue of "Cahiers Science & Vie", on "the lost worlds" ("les mondes perdus"), N°130, June 2012.