




Xavier Alameda-Pineda, Eng, PhD

Research Scientist at the Perception Team¹

INRIA Grenoble Rhône-Alpes², Université Grenoble Alpes³

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ACADEMIC DIPLOMAS

- 2014 – **Qualification for *Maître de Conférences* Section CNU 61** (MENESR⁴, Paris, France)
- 2013 – **PhD in Mathematics and Computer Science** (Perception Team, INRIA, UJF⁵, Grenoble, France)
- 2010 – **Masters in Computer Science (Graphics, Vision and Robotics)** (MoSIG⁶, UFR IM2AG⁷, UJF, Grenoble-INP⁸, Grenoble, France)
- 2009 – **Masters (equivalent) in Telecommunications Engineering** (ETSETB⁹ - UPC¹⁰, Barcelona, Spain)
- 2008 – **Masters (equivalent) in Mathematics** (FME¹¹ - UPC, Barcelona, Spain)

RESEARCH EXPERIENCE

- Research Scientist** [REF.: DR. RADU HORAUD] (Perception Team, INRIA, 2016-Now, Grenoble, France)
- Postdoctoral Fellow** [REF.: PROF. NICU SEBE] (MHUG¹², DISI¹³, University of Trento, 2014-2016, Trento, Italy)
- Postdoctoral Fellow** [REF.: PROFS. LAURENT GIRIN/RADU HORAUD] (MAGIC/Perception Teams, GIPSA-LAB/INRIA, 2013-2014, Grenoble, France)
- PhD Thesis: Egocentric Audio-Visual Scene Analysis, A Machine Learning and Signal Processing Approach** [REF.: DR. RADU HORAUD] (Perception Team, INRIA, UJF, 2010-2013, Grenoble, France)

STUDENT SUPERVISION

- PhD:** Yutong Ban (2016-17), Andrea Pilzer (2016-17), Dan Xu (2016-17), Sergey Tulyakov (2015-17), Dionyssos Kounades-Bastian (2014-17), Israel-Dejene Gebru (2014-17), Maxime Janvier (2013-14).
- Masters:** Alessio Xompero (2014), Israel-Dejene Gebru (2013), Maxime Janvier (2012).

PAPER AWARDS

- Best scientific paper award** for *Multi-Paced Dictionary Learning for Cross-Domain Retrieval and Recognition* at **IEEE International Conference on Pattern Recognition 2016**
- Best paper award** for *Analysing Free-standing Conversational Groups: A Multimodal Approach* at **ACM International Conference on Multimedia 2015**
- Best student paper award** for *A Variational EM Algorithm for the Separation of Moving Sound Sources* at **IEEE Workshop on Applications of Signal Processing to Audio and Acoustics 2015**
- Outstanding paper award** for *Finding Audio-visual Events in Informal Social Gatherings* at **IEEE/ACM International Conference on Multimodal Interaction 2011**

SELECTED PUBLICATIONS

- [S1] Xavier Alameda-Pineda, Jacopo Staiano, Ramanathan Subramanian, Ligia Maria Batrinca, Elisa Ricci, Bruno Lepri, Oswald Lanz, and Nicu Sebe. “SALSA: A Novel Dataset for Multimodal Group Behavior Analysis”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 38.8 (2016), pp. 1707–1720
- [S2] Israel-Dejene Gebru, Xavier Alameda-Pineda, Florence Forbes, and Radu Horaud. “EM algorithms for weighted-data clustering with application to audio-visual scene analysis”. In: *IEEE Transactions on Pattern Analysis and Machine Intelligence* 38.12 (2016), pp. 2402–2415. DOI: [10.1109/TPAMI.2016.2522425](https://doi.org/10.1109/TPAMI.2016.2522425). URL: <http://arxiv.org/abs/1509.01509>
- [S3] Dionyssos Kounades-Bastian, Laurent Girin, Xavier Alameda-Pineda, Sharon Gannot, and Radu Horaud. “A Variational EM Algorithm for the Separation of Time-Varying Convolutional Audio Mixtures”. In: *IEEE/ACM Transactions on Audio, Speech and Language Processing* 24.8 (2016), pp. 1408–1423. URL: <http://arxiv.org/abs/1510.04595>
- [S4] Xavier Alameda-Pineda and Radu Horaud. “Vision-Guided Robot Hearing”. In: *International Journal of Robotics Research* 34.4-5 (2015), pp. 437–456

NATURAL & PROGRAMMING LANGUAGES

Catalan: Mother tongue. **Spanish:** Expert. **English & French:** Professional/Teaching. **Italian:** Intermediate.
C: Mother tongue. **Matlab & L^AT_EX:** Expert. **C++ & UNIX Shell:** Fluent. **Java & Python:** Beginner.

C Mother tongue, **Matlab** & **L^AT_EX** Expert, **C++** & **UNIX Shell** Fluent, **Java** & **Python** Beginner.
// **GNUplot** Beginner, **Maple** Fluent. // **L^AT_EX** Advanced. // **UNIX Shell** Fluent. // **HTML**, **XHTML** and **CSS** Beginner. // **Pspice**,
Quartus 2 and **LabView** Beginner.

WHAT DO I LIKE TO DO?

Mountain: hiking, rock climbing, bouldering and a bit of ski.

Photography: My Nikon D50 captures what I see. The five lenses (18-35mm, 50mm, Lensbaby Muse, Fisheye 8mm and 70-300mm) allow me to benefit from a wide band of perspective, color and depth field. I also enjoy creating panoramas using Hugin.

Dancing: Lindy Hop, Balboa and Charlestone (so plenty of Swing) and also folk and latin.

Cooking: I like cooking; for myself and for the others. In addition, I believe that research and cooking are two disciplines with a lot in common (see xavirema.eu/research/).

NOTES

¹Perception Team's web site

²Institut National de Recherche en Informatique et Automatique, Siège de Grenoble Rhône-Alpes

³Université Grenoble Alpes

⁴Ministère de l'Éducation National, l'Enseignement Supérieur et la Recherche

⁵Université Joseph Fourier, Grenoble 1

⁶Master of Science in Informatics at Grenoble

⁷Unité de Formation et Recherche en Informatique, Mathématiques et Mathématiques Appliquées de Grenoble

⁸Grenoble-INP

⁹Escola Tècnica Superior d'Enginyeria de Telecomunicacions de Barcelona

¹⁰Universitat Politècnica de Catalunya – BarcelonaTECH

¹¹Facultat de Matemàtiques i Estadística

¹²Multimodal Human Understanding Group

¹³Department of Information Engineering and Computer Science