

Joan Bruna

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CITIZENSHIP Spanish

RESEARCH INTERESTS Machine Learning, Deep Learning, High-Dimensional Statistics, Inverse Problems, Optimization.

PROFESSIONAL EXPERIENCE

Courant Institute of Mathematical Sciences, NYU, New York, NY
Assistant Professor, Department of Computer Science,
Department of Mathematics (affiliated) and Center for Data Science, **Fall 2016-Now**

UC Berkeley, Berkeley, CA
Assistant Professor, Dept of Statistics, **Jan 2015 - Aug 2016**

Facebook AI Research, New York, NY
Post Doctoral Fellow, AI Research, **Oct-Dec 2014**

Courant Institute, NYU, New York, NY
Postdoctoral Researcher **Oct 2012 - Sep 2014**

CSR (through acquisition), Malakoff, France
Senior Reseach Consultant **Oct 2010 - July 2012**

Zoran (through acquisition) , Malakoff, France
Senior Reseach Engineer **June 2008 - Sep 2010**

Let it Wave, Palaiseau and Malakoff, France.
Research Engineer **April 2005 to June 2008**

EDUCATION

Ecole Polytechnique, Palaiseau, France
Ph.D. in Applied Mathematics, “Scattering Representations for Recognition”, 2008-2013.
• Thesis Topics: *Invariant signal representations, classification, pattern recognition, stochastic processes, invariance learning, differential geometry.*
• Adviser: Professor Stéphane Mallat.

Ecole Normale Supérieure, Cachan, France
MSc “Mathématiques, Vision, Apprentissage” in Applied Mathematics, 2004-2005.
• Image, audio and video processing, Harmonic analysis, Machine Learning, Wavelet theory.
• *Mention Très bien.*

Universitat Politècnica de Catalunya, Barcelona, Spain
BS, MSc Telecommunications Engineering, 1999-2004,
• Master Thesis developed in Nokia Denmark (Aalborg), 2003-2004.
• Title: “New Modeling techniques for HSDPA/WCDMA” (*A with honors*).
BS Mathematics, 1998-2002.
• *With Honors, Ranked 2nd.*

AWARDS

- Alfred P. Sloan Research Fellowship, 2018.
- ENS Cachan Scholarship, 2004-2005
- Honors Mention in Spanish Physics Olympiad, 1998
- 2nd national place in Cangur Mathematical Contest, 1996

PAPERS See <https://scholar.google.com/citations?user=L4bNmsMAAAAJ&hl=en>

PATENTS See <https://cims.nyu.edu/~bruna>