

## CURRICULUM VITAE

G rard BEN AROUS  
Courant Institute of Mathematical Sciences  
251 Mercer Street  
New York, NY 10012

### **Education**

1987 "Doctorate es Sciences" (Th se d'Etat, University of Paris)  
1981 PhD, Mathematics, University Paris 7, advisor Robert Azencott  
1980 MSc, Mathematics (DEA), University Paris 6  
1979 MSc, Statistics (DEA), University Paris Sud (Orsay)  
1978 BS (Maitrise), Mathematics, University Paris 7  
1977-1981 Ecole Normale Sup rieure (Paris)

### **Academic positions**

2002- Professor of Mathematics, Courant Institute of Mathematical Sciences, NYU.  
1997-2007 Professor at Ecole Polytechnique F d rale de Lausanne (EPFL or Swiss Federal Institute of Technology), Chair of Stochastic Modeling.  
1994-1997 Professor of Mathematics, Ecole Normale Sup rieure (Paris).  
1988-1994 Professor at the University of Paris Sud (Orsay).  
1986-1988 "Maitre de conferences" (Assistant Professor) at Ecole Normale Sup rieure.  
1982-1983 Post-doc at the University of Colorado (Boulder), advisor Daniel Stroock.  
1981-1986 Research Fellow at Ecole Normale Sup rieure (Paris).

### **Managerial experience:**

2011-2016 Vice-Provost for Science and Engineering development at NYU.  
2011-2016 Director of the Courant Institute of Mathematical Sciences, NYU.  
2009-2010 Acting Director of the Courant Institute of Mathematical Sciences, NYU.  
2001 Founder of the Bernoulli Institute at EPFL  
1994-1997 Director of the Department of Mathematics and Computer Science of Ecole Normale Sup rieure  
1992-1994 Director of the Laboratory of Mathematics of Paris Sud (Orsay)

### **Honors and distinctions**

- Chevalier de l'ordre des Palmes Acad miques, 2017
- Elected Member of the American Academy of Arts and Sciences, since 2015
- Fellow of the Institute of Mathematical Statistics, since 2011
- Elected Member of the International Statistical Institute, since 2004
- Lady Davis Senior Fellow, Israel, 2000
- Montyon prize of the French Academy of Sciences in November 1996.
- Rollo Davison prize (Imperial college), 1993

### **Distinguished Lectures**

- Lipschitz Lectures, Bonn University, 2017
- Grandes Conferences du CRM, Montreal, 2017
- Stelson Lectures, Georgia Tech, 2016
- K.L Chung Lectures, Stanford, 2015
- Public conference: "Un texte, un mathematicien", Bibliotheque Nationale de France, 2014
- Levy Lecture, Bernoulli Society and Elsevier, 2013
- Plenary lecture at the Joint meetings of the AMS, 2013
- Duncan Lectures, Johns Hopkins, 2012
- Stephan Bergman Lectures, Stanford, 2009
- Invited speaker at ICM (International Congress of Mathematics), Peking, 2002
- Plenary speaker at the 2nd ECM (European Congress of Mathematics) in Budapest, July 1996.

## Research Interests

Probability theory and its applications, from physics to machine learning. In particular: stochastic analysis, random matrices, non-equilibrium statistical mechanics, dynamics of spin glasses, transport and diffusion in random media, aging, homogenization, large deviations, hypoelliptic operators and heat kernels.

## Editorial boards:

Editor of:

- Managing editor of Probability Theory and Related Fields with Amir Dembo, 2010-2016.
- One of the five main editors of JEMS, Journal of the European Mathematical Society, 1999-2004.

Associate editor of:

- Communications in Pure and Applied Mathematics, since 2010
- Journal of Theoretical Probability, 2006-2011
- Annales de l'Institut Henri Poincaré, 1992-2010
- Annals of Probability
- « Astérisque » (Société Mathématique de France)
- Infinite Dimensional Analysis, Quantum Probability and related topics
- ESAIM, Probability and Statistics, the electronic review of SMAI.
- Mathematical Physics, Analysis and Geometry

## Supervision of PhD theses (20)

1. Mihai NICA (Courant Institute), “Non-intersecting Random Processes and Multi-layer Random Polymers”, April 2017. Mihai will be an NSERC Postdoc at the University of Toronto with Jeremy Quastel.
2. Levent SAGUN (Courant Institute), “Explorations on High Dimensional Landscapes”, April 2017, Levent will be a Simons Postdoc at Ecole Normale Supérieure (Paris) with Giulio Biroli
3. Aukosh JAGANNATH (Courant Institute), “Variational and Structural methods in Mean Field Spin Glasses”, April 2016, Aukosh is currently an NSF Postdoc at the University of Toronto with Dmitry Panchenko, and will be a Postdoc at Harvard University with H.T Yau.
4. Manuel CABEZAS (Santiago de Chile), “One dimensional Trap models”, March 2012, advised jointly with A.Ramirez (Santiago). Manuel is an associate Professor at the Pontificia Universidad Católica de Chile (Santiago).
5. Ivan CORWIN (Courant Institute), “The KPZ equation and Universality class”, May 2011, Ivan is an associate professor at Columbia University
6. Antonio (Tuca) AUFFINGER (Courant Institute), “Random Matrices, complexity of Spin Glasses and Heavy Tailed processes” May 2011. Tuca is an associate professor at Northwestern University
7. Onur GUN (Courant Institute), “Universality of Transient dynamic and aging for Spin-Glasses”, September 2009. Onur Gun is a post-doc in Berlin with W.Konig.
8. Vladislav KARGIN (Courant Institute), “Limits theorem in Free Probability Theory”, April 2008, Slava is an assistant professor at SUNY, Binghamton
9. Roman ROYFMAN (Courant Institute), “Randomly Trapped Random Walks”, April 2008. Roman works at Goldman Sachs.
10. Alexey KUPTSOV (Courant Institute), “REM universality for spin glasses”, January 2008. Alexey works at JP Morgan Chase.
11. Sandrine PECHE (EPFL), “Universality of local eigenvalue statistics for random sample covariance matrices”, January 2003. Sandrine is a Professor at the University of Paris 7.
12. Jiri CERNY (EPFL), “Some properties of Strongly disordered systems”, January 2003. Jiri is a professor at the University of Vienna.
13. Jean-Baptiste BARDET (EPFL), « Large deviations for coupled map lattices », October 2002. Jean-Baptiste is Maitre de Conférences at the University of Rouen (France).
14. Michel SORTAIS (EPFL), “Large deviations for disordered lattice models dynamics”, October 2001. Michel is professor at the IUT (Institute of Technology) of the University Paris Descartes (Paris 5)
15. Houman OWHADI (EPFL), “Anomalous diffusion from multiscale homogenisation”, January 2001. Houman is a professor of Applied and Computational Mathematics at Caltech
16. Though I was not his official advisor, I had the pleasure to lead the scientific part of the thesis of Raphael CERF (ENS) on “Large deviations for Genetic algorithms”. Raphael CERF is now professor at the University of Paris 11 Orsay, and Ecole Normale Supérieure.
17. Mihai GRADINARU (Orsay), “Singularity of hypoelliptic Green functions near the diagonal », June 1995 M. Gradinaru is a professor at the University of Rennes (France).
18. Alice GUIONNET (Orsay), “Dynamics of spin glasses”, March 1995. Alice is a full professor at MIT and a “Directeur de Recherches” at CNRS.
19. Fabienne CASTELL (Orsay), “Stochastic Flows”, January 1992. Fabienne is Professor at the University of Marseilles (France).

20. Marc BRUNAUD (Orsay), “Mean Field Interacting Diffusions”, December 1989. Marc is Maitre de Conférences at the University Paris Diderot (Paris 7)

**Supervision of Postdoctoral Fellows (14)**

1. Eliran SUBAG (Courant), Eliran will come to Courant as a Simons Fellow in the Fall 2017
2. Lisa HARTUNG (Courant), currently a Courant Instructor
3. Alexander FRIBERGH (Courant), Assistant Professor at the University of Montreal
4. Alan HAMMOND (Courant), Associate Professor at Berkeley University
5. Paul BOURGADE (Courant), Associate Professor at Courant
6. Kay KIRKPATRICK (Courant), Associate Professor at the University of Illinois at Urbana-Champaign,
7. Julien DUBEDAT (Courant), Associate Professor at Columbia
8. Reda MESSIKH (EPFL), Reda works at the Banque Pictet, Geneva
9. Ostap HRYNIV (EPFL), Lecturer at Durham University
10. Pierre TARRES (EPFL), Directeur de recherche at CNRS, Université Paris-Dauphine
11. Sebastien BLACHERE (EPFL), Maitre de Conférences, Université Aix-Marseille
12. Veronique GAYRARD (EPFL), Directeur de Recherche at CNRS, Marseille
13. Alejandro RAMIREZ (EPFL), Professor at P.U.C, Santiago, Chile
14. Giambattista GIACOMIN (EPFL), Professor at University Paris 7

