

Prof. Dr. Sylvie Roelly

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Married to Dr. Hans Zessin
5 children, 6 grandchildren

Professional career

since 04/2003 Professor for Probability Theory, Potsdam
09/2001–03/2003 Research associate at *Weierstraß Institut für Angewandte Analysis und Stochastik*, Berlin
10/1990–09/1994 Post-doctoral research fellow from *Alexander von Humboldt Stiftung* and *European fellowship*, Universität Bielefeld
since 1985 Researcher at Centre National de la Recherche Scientifique (France)
09/1984–08/1985 Lecturer, Ecole Normale Supérieure, Paris

Academic education

1991 Habilitation, Université Paris 6
1984 Ph.D., Université Paris 6 (Supervisor: N. El Karoui)
1982 Agrégation en Mathématiques
1980 Diploma in Mathematics, Université Paris 7
1979-1984 Student at the Ecole Normale Supérieure, Paris

Research areas

- Stochastic analysis
- interacting particle systems
- statistical mechanics
- diffusion processes
- branching processes
- Stochastic partial differential equations

Organisational activities and awards (selection)

- Head of the Institute of Mathematics, Universität Potsdam, 2010–2015
- Associate Editorship: Stochastic Processes and its Applications 2015-
- Associate Editorship: North-Western European Journal of Mathematics, 2014-
- Associate Editorship: Raisons-Comparaisons-Éducatons, 2007-2013
- Co-organizer of the Workshop founded by the RTG 1845, *Junior female researchers in probability*, Berlin and Potsdam, 2013
- Co-organizer of 33rd International Conference “Stochastic Processes and Their Applications”, Berlin, 2009
- Organizer of joint Meetings of the French-German doctoral college CDFA-01.06 *Applications of stochastic processes*, Potsdam, 2006, 2007, 2008, 2009
- Organizer of the Spring school of the IRTG *Stochastic Models of Complex Processes*, Potsdam, 2007
- 2015 Mathemacherin des Monats April 2015 (DMV-Prize)
- 2007 Itô prize
- 1993-1994 European fellowship (Programm: Human Capital and Mobility)
- 1991-1993 Stipendium der Alexander von Humboldt Stiftung

Most important externally funded projects (last five years only)

- Local organizer of the Exhibition *Jüdische Mathematiker in der deutschsprachigen akademischen Kultur*, April 2015, Universität Potsdam
<http://www.math.uni-potsdam.de/en/professuren/wahrscheinlichkeitstheorie/personen/prof-dr-sylvie-roelly/projekte/ausstellung>
- German initiator and Speaker of the French-German doctoral college *Applications of Stochastic Processes* between Université Paris Ouest-Nanterre and Universität Potsdam. Financial support from the Deutsch-Französische Hochschule, 2006-2008 extended 2009-2011.
<http://www.math-doktorandenkolleg-potsdam-paris.eu>
- German head of the DAAD-Leonhard-Euler Programm *Analyse feiner Eigenschaften zufälliger Prozesse* and *Feine Eigenschaften stochastischer Prozesse*. Fellowships for Ukrainian PhD-students 2012-2013 and 2013-2014.
- German responsible of the PROCOPE-Project *Strukturanalyse zufälliger Geometrie in Raum und Zeit*. Research stays in Lille, 2012-2013.

PhD (○) and postdoc (●) supervision, with next affiliations (na) (last five years only)

- S. Pénişon (Potsdam and Uni Paris-Sud, 07-10), na: Université Paris-Est Créteil, Assistant Professor
- R. Murr (Potsdam and Uni Paris Ouest-Nanterre, 08-12), na: Quant Institute, DB Risk-Center
- P. Keller (Potsdam and MPI, 09-12)
- B. Nehring (Potsdam, 09-12)
- G. Conforti (Potsdam and Uni Padova, 12-15), na: Leipzig (postdoc)
- S. Mazzonetto (Potsdam and Uni Lille, since 13)
- L. Pédèches (Potsdam and Uni Toulouse, since 14)
- M. Högele (Potsdam 09-14), na: Universidad de los Andes, Bogotá (Assistant Professor)
- T. Kosenkova (Potsdam 15-)

List of 10 most important publications:

- Roelly, S. (1986). Criterion of convergence of measure-valued processes and Application to measure-branching processes. *Stochastics*, 17:43–65
- El Karoui, N. and Roelly, S. (1991). Propriétés de martingales, explosion et représentation de Lévy-Khintchine d’une classe de processus de branchement à valeurs mesures. *Stochastic Processes and their Applications*, 38:239–266.
- Roelly, S. and Zessin, H. (1993). The equivalence of equilibrium principles in statistical mechanics and some applications to large particle systems. *Expositiones Mathematicae*, 11:385–405.
- Minlos, R., Roelly, S. and Zessin, H. (2000). Gibbs states on space-time. *Potential Analysis*, 13:367–408.
- Fradon, M. and Roelly, S. (2010). Infinitely many Brownian globules with Brownian radii. *Stochastics and Dynamics*, 10:591–612.
- Méléard, S. and Roelly, S. (2013). Evolutive two-level population process and large population approximations. *Ann. Univ. Bucharest*, 4:37–70.
- Conforti G., Léonard, C., Murr R. and Roelly, S. (2015). Bridges of Markov counting processes. Reciprocal classes and duality formulas. *Electron. Commun. Probab.*, 20 (18):1–12.
- Léonard, C., Roelly, S. and Zambrini, J.-C. (2014). Reciprocal processes: A measure-theoretical point of view. *Probability Surveys*, 11:237–269.
- Dereudre D. and Roelly, S. (2016). Path-dependent infinite-dimensional SDE with non-regular drift: an existence result. *Annales de l’Institut Henri Poincaré*,
- Cattiaux, P., Fradon, M., Kulik, A. and Roelly, S. (2016). Long time behavior of stochastic hard ball systems. *Bernoulli Journal*, 22(2):681–710.

Scientific collaborators (last five years):

- P. Cattiaux (Toulouse)
- G. Conforti (Potsdam/Padova)
- P. Dai Pra (Padova)
- D. Dereudre (Lille)
- M. Fradon (Lille)
- P. Keller (Potsdam)
- A. Kulik (Kyiv)
- C. Léonard (Paris)
- S. Méléard (Paris)
- S. Mazzonetto (Potsdam/Lille)
- F. Redig (Delft)
- W. Ruszel (Delft)
- A. Valleriani (Potsdam)
- J.-C. Zambrini (Lisboa)