

Prof. Dr. Sylvie Roelly

Institut für Mathematik, Universität Potsdam
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Married to Dr. Hans Zessin

5 children, 8 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

Scientific collaborators (last five years):

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

Organisational activities and awards (selection)

- Vice-Dean of the Faculty of Science, Universität Potsdam, 2016–
- Head of the Institute of Mathematics, Universität Potsdam, 2011–2015
- Head of the Commission of Equal Opportunity of the Faculty of Science, 2016–2017
- Associate Editorship: *Stochastic Processes and its Applications* 2015–
- Associate Editorship: *North-Western European Journal of Mathematics*, 2014–
- Associate Editorship: *Raisons-Comparaisons-Éducatives*, 2007–2013
- Organizer of the Congress *MATh.en.Jeans*, Berlin and Potsdam, 2018 and 2014
- Organizer of the Meeting of the French-German doctoral college CDFA-01.18 *Stochastic processes and statistical machine learning I*, Potsdam 2018
- Co-organizer of the Workshops *Random models with applications in the natural sciences* and *Stochastic processes with applications in the natural sciences*, Bogota, 2017, 2016
- 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
- 2015 Mathemacherin des Monats April 2015 (DMV-Prize)
- 2007 Itô prize
- 1993–1994 European fellowship (Programm: Human Capital and Mobility)
- 1991–1993 Fellowship from the Alexander von Humboldt Foundation

Most important externally funded projects (last five years only)

- German Speaker of the Research Group Linkage between the Institute of Mathematics of Universität Potsdam and the Institute of Mathematics at the National Academy of Sciences of Ukraine, founded by the Alexander von Humboldt Foundation, 2018–2021
- German initiator and Speaker of the French-German doctoral college *Stochastic processes and statistical machine learning* between Université Toulouse and Universität Potsdam. Financial support from the Deutsch-Französische Hochschule, 2018–2021.
- Principal investigator from projects A01 and A05, SFB 1294 *Data Assimilation* founded by the German Science Foundation, 2017–
- 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 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.

PhD (○) and postdoc (●) supervision, with next affiliations (na) (last 8 years)

- S. Péniisson (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: Palaiseau (Assistant Professor)
- S. Mazzone (Potsdam and Uni Lille, 13-16), na: Essen (postdoc)
- L. Pédèches (Potsdam and Uni Toulouse, 14-17) na: Toulouse (postdoc)
- M. Högele (Potsdam 09-14), na: Universidad de los Andes, Bogotá (Assistant Professor)
- T. Kosenkova (Potsdam 15-)
- A. Oliveira Gomes (Potsdam 18)
- S. Sindaigaya (Potsdam 18)

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). Evolutionary 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.
- Cattiaux, P., Fradon, M., Kulik, A. and Roelly, S. (2016). Long time behavior of stochastic hard ball systems. *Bernoulli Journal*, 22(2):681–710.
- Dereudre D. and Roelly, S. (2017). Path-dependent infinite-dimensional SDE with non-regular drift: an existence result. *Annales de l’Institut Henri Poincaré*, 53(2):641–657.