Prof. Dr. Peter Imkeller
(retired)

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Personal data

Date of birth:	February 6, 1951.
Place of birth:	Bad Königshofen, Bavaria, Germany.
Marital status:	married to Elke Imkeller, since 1982.
Children:	Martin, born 1987; Katharina, born 1988.

Professional career

since 02/2019	Professeur Invité Université du Luxembourg
since 04/2017	retired Professor
04/2016–03/2017	Senior Researcher
02/2003–03/2016	Professor for Applied Probability Theory (C4), HUB
04/1996–02/2003	Professor for Applied Probability Theory (C3), HUB
10/1995–03/1996	Professor at Medizinische Universität Lübeck
09/1993–09/1995	Professor at Université de Franche-Comté, Besançon, France
07/1990–08/1993	"Oberassistent" (temporary), U Munich
11/1988–07/1990	"Akad. Oberrat a. Z." (C2) (temporary), U Munich
11/1982–11/1988	"Akad. Rat a. Z." (C1) (temporary), U Munich
11/1977–10/1982	"Assistent" (C1), U Munich

Academic education

1987	Habilitation, U Munich
1982	Dr. rer. nat., U Munich (Supervisor: H.G. Kellerer)
1979	Staatsexamen (exam for secondary schools in Bavaria), U Munich
1977	Diploma in Mathematics, U Munich

Research areas

- Stochastic analysis
- Random dynamical systems
- Stochastic dynamics
- Stochastic climate models
- Control theory and stochastic finance
- Rough path analysis and SPDE

Organisational activities and awards (selection)

- Associate Editor: Archiv der Mathematik, 1998-2007
- Associate Editor: Stochastics and Dynamics, 2001-now
- Associate Editor: Journal of Theoretical Probability, 2007-now
- Associate Editor: Bernoulli, 2013-2016
- Associate Editor: EMS Series, 2014-now
- Associate Editor: Probability, Uncertainty and Quantitative Risk, 2016-now
- co-organizer "School and Workshop on Stochastic Optimal Control and Applications (SOCA), AIMS Ghana, 2017
- co-organizer "Workshop on Securitization of Weather and Climate Risk", HU Berlin, 2006
- chair organizing committee AMaMeF Workshop "Information in Pricing Models", Toulouse, 2007
- co-chair organizing committee Mathematical Modelling of Climate and Energy Risk, Banff, Canada, 2007
- co-organizer "Die versiegelte Formel. Wolfgang Döblin und die Ursprünge der Stochastischen Analysis." Berlin-Brandenburgische Akademie der Wissenschaften
- Co-chair organizing committee of SPA 2009, Berlin
- member of the board of Berlin Mathematical School (BMS), graduate school in DFG funded Excellence Initiative, 2006–2014
- member of the Alexander von Humboldt Foundation Selection Board for German Research Professorships at AIMS Centers in Senegal, Cameroon, Ghana, South Africa, Tanzania and Ruanda 2009-now
- member of the CRM Scientific Advisory Board, U Autonoma, Bellaterra, Spain, 2012-now
- member of the Alexander von Humboldt Foundation Selection Board for Forster Fellowships, 2014-now
- member of "DFG Fachkollegium Mathematik" of German Science Foundation, 2015-now
- German partner of German Research Chair at AIMS Ghana, 2016-now
- member of "Advisory Board of CIMPA", 2017-2019

Most important externally funded projects (last five years only), (*) indicating relevance for RTG

- (*) Project A11 "Securitization and Equilibrium Risk Transfer", SFB 649 "Economic Risk", DFG, (2009–2012)
- (*) member of board of DFG International Research Training Group (IRTG 1740) "Dynamical Phenomena in Complex Networks: Fundamentals and Applications", HU Berlin, Physics, (2011–2014)
- (*) Initiator and organisator ZiF Cooperation Group "Exploring climate variability: physical models, statistical inference and stochastic dynamics", (2013)
- (*) Project E2 "Securitization: assessment of external natural risk factors, in particular energy", MATHEON, DFG, (2009 – 2014)
- (*) speaker of the Research Training Group (GRK 1845) "Stochastic Analysis with Applications in Biology, Finance and Physics", DFG, (2012 – 2017)
- (*) Project head of the Einstein Foundation project "Game Options and Markets with Frictions", ECMath, Berlin, (2013 – 2016)
- (*) Project 04 "Rough Paths and random dynamical Systems", DFG Forschergruppe 2402 "Rough Paths, Stochastic Partial Differential Equations and Related Topics", (since 2016)

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

- ○ N. dos Reis (HUB 04-10), na: (TU Berlin, U Edinburgh),
- ○ M. Högele (HUB 06-10), na: (U Potsdam, U de los Andes, Bogota) (*Dissertationspreis Adlershof, 2011*),
- ○ A. Richter (HUB 07-11), na: (ETH Zürich, Barouch College, CUNY),
- ○ C. Hein (HUB 08-12),
- ○ J. Zhang (HUB, 09-13), na: (TU München),
- ○ K. Eichmann (HUB, 06-13), na: (HTW Berlin),
- ○ N. Perkowski (HUB, 10-13), na: (U Dauphine, HU Berlin), (*Förderpreis der Fachgruppe Stochastik der DMV, 2016*),
- ○ A. Fromm (HUB, 10-14), na: (TU Berlin, U Jena),
- ○ D. Prömel (HUB 12-15), na: (ETH Zürich, U Oxford),
- ○ J. Gairing (HUB 11-18), na: (LMU München),
- ○ V. Feunou (HUB 12-18), na: (U Freiburg),
- ○ L. Tangpi (HUB 12-13), na: (U Konstanz, U Vienna),
- ○ A. Gomes (HUB 12-17),
- ○ T. Wetzel (HUB 14-22),
- ○ N. Esmaeeli (HUB 14), na: (Sharif U Tehran),
- ○ J. Bielagk (HUB 11-17), na: (HU Berlin)
- • A. Reveillac (HUB, 08-10), na: (U Toulouse),
- • M. Grigorova (HUB 13-16), na: (U Hannover),

List of 10 most important publications:

Articles and book publications

[ADI06], [AI99], [IPW09], [AIDR10], [DHI13], [FIZ07], [GIP15], [GIP16], [HIM05], [Imk03], [IPW09]

Scientific collaborators:

- ○ A. Debussche
- ○ G. Dos Reis
- ○ F. Flandoli
- ○ Y. Hu
- ○ Y. Ouknine
- ○ I. Pavlyukevich
- ○ M.-C. Quenez
- ○ A. Reveillac
- ○ C. Tudor

Bibliography and Citations:

References

[ADI06] S. Ankirchner, S. Dereich, and P. Imkeller. The Shannon information of filtrations and the additional logarithmic utility of insiders. *Ann. Probab.*, 34(2):743–778, 2006.

[AI99] L. Arnold and P. Imkeller. Rotation numbers for linear stochastic differential equations. *Ann. Probab.*, 27(1):130–149, 1999.

[AIDR10] S. Ankirchner, P. Imkeller, and G. Dos Reis. Pricing and hedging of derivatives based on non-tradable underlyings. *Mathematical Finance*, 20(2):289–312, 2010.

[DHI13] A. Debussche, M. Hoegele, and P. Imkeller. *The Dynamics of Nonlinear Reaction-Diffusion Equations with Small Lévy Noise*. Lecture Notes in Mathematics, Vol. 2085, Springer Verlag, 2013.

[FIZ07] S. Fang, P. Imkeller, and T. Zhang. Global flows for stochastic differential equations without global Lipschitz conditions. *Ann. Probab.*, 35(1):180–205, 2007.

[GIP15] M. Gubinelli, P. Imkeller, and N. Perkowski. Paracontrolled distributions and singular PDEs. *Forum Math. Pi*, 3:e6, 75, 2015.

[GIP16] M. Gubinelli, P. Imkeller, and N. Perkowski. A Fourier approach to pathwise stochastic integration. Electr. Journal in Probab., 2016.

[HIM05] Y. Hu, P. Imkeller, and M. Müller. Utility maximization in incomplete markets. *Ann. Appl. Probab.*, 15(3):1691–1712, 2005.

[Imk03] P. Imkeller. Malliavin's calculus in insider models: additional utility and free lunches. *Math. Finance*, 13(1):153–169, 2003.

[IPW09] P. Imkeller, I. Pavlyukevich, and T. Wetzel. First exit times for Lévy-driven diffusions with exponentially light jumps. *Ann. Probab.*, 37(2):530–564, 2009.