Curriculum Vitae

apl. Prof. Dr. Stefan Tappe
Albert Ludwig University of Freiburg
Department of Mathematical Stochastics
Ernst-Zermelo-Straße 1
79104 Freiburg, Germany

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Personal Data

- Born on February 7th, 1977 in Detmold (North Rhine-Westphalia), Germany
- Marital status: married

Education

- *PhD in Mathematics*, Humboldt University of Berlin, November 2005
  Thesis: "Finite dimensional realizations for term structure models driven by semimartingales"
  Advisor: Uwe Küchler
- *Diploma in Mathematics*, University of Paderborn, August 2002
  Thesis: "Cellular resolutions of monomial ideals"
  Advisor: Uwe Nagel
- *University-Entrance Diploma*, Gymnasium Leopoldinum, Detmold, June 1996

Employment and Academic Positions

- *Academic Staff* (Deputy of the Junior Professorship of Philipp Harms), Department of Mathematical Stochastics, Albert Ludwig University of Freiburg, Germany, since April 2019
- *Deputy Professor* (W3-Professorship, Chair of Thorsten Schmidt), Department of Mathematical Stochastics, Albert Ludwig University of Freiburg, Germany, October 2018 to March 2019

- *Academic Staff*, Department of Mathematical Stochastics, Albert Ludwig University of Freiburg, Germany, April 2018 to September 2018
- *Deputy Professor* (W3-Professorship, Chair of Thorsten Schmidt), Department of Mathematical Stochastics, Albert Ludwig University of Freiburg, Germany, October 2017 to March 2018
- *Academic Guest*, Bernoulli Center, EPF Lausanne, Switzerland, April 2017 to June 2017
- *Junior Professor*, Institute of Probability and Statistics, University of Hannover, April 2011 to March 2017; this position has been extended in April 2014 after a successful mid-term evaluation for further three years
- *Senior Postdoc* in the group of Josef Teichmann, Department of Mathematics, ETH Zurich, October 2009 to March 2011
- *Senior Scientist* in the group of Damir Filipović, Vienna Institute of Finance, University of Vienna and Vienna University of Economics and Business, October 2007 to September 2009
- *Research and Teaching Assistant* in the group of Damir Filipović, Department of Mathematics, Ludwig Maximilian University of Munich, October 2005 to September 2007
- *Research Fellow* in the group of Uwe Küchler, Department of Mathematics, Humboldt University of Berlin, October 2002 to September 2005
- *Student Assistant*, Department of Mathematics and Computer Sciences, University of Paderborn, April 1999 to July 2002

Current Research Interests

- Infinite dimensional stochastic analysis
- Stochastic differential equations, stochastic partial differential equations, stochastic integration
- Stochastic invariance problems, in particular for manifolds and cones
- The general semimartingale theory of stochastic processes
- Affine processes, Lévy processes
- Financial Mathematics, interest rate models, affine term structures

Awards and Fellowships

- DFG Research Fellowship ("Graduiertenkolleg 251: Stochastische Prozesse und probabilistische Analysis"), October 2002 to September 2005
- Award for Excellent Achievements in Mathematics ("Preis der Fakultät 2002"), University of Paderborn, February 2003

Shortlist Positions for Professorships

- Shortlisted (2nd position), Professorship *Stochastic Processes* at the University of Klagenfurt, Austria, 2017[1]
- Shortlisted (without declaration of the position), Professorship *Stochastics* at the University of Innsbruck, Austria, 2016
- Shortlisted (2nd position), Professorship *Stochastic Processes* at the University of Klagenfurt, Austria, 2015
- Shortlisted (without declaration of the position), W2-Professorship *Stochastic Analysis* at the Friedrich Schiller University of Jena, Germany, 2013
- Shortlisted (2nd position), Junior Professorship *Financial Mathematics* at the Munich University of Technology, Germany, 2011
- Shortlisted (1st position), Junior Professorship *Actuarial and Financial Mathematics* at the University of Hannover, Germany, 2011 (accepted)
- Shortlisted (1st position), Junior Professorship *Financial Mathematics* at the Karlsruhe Institute of Technology, Germany, 2011 (not realized)
- Shortlisted (3rd position), Junior Professorship *Mathematical Stochastics* at the Otto-von-Guericke University Magdeburg, Germany, 2009
- Shortlisted (3rd position), Junior Professorship *Probability Theory and its Applications* at the Humboldt University of Berlin, Germany, 2009

Offers for Deputy Professorships

- Offer for a Deputy Professorship (W3) for *Stochastics* at the Albert Ludwig University of Freiburg, Germany, Winter 2018/19 (accepted)
- Offer for a Deputy Professorship (W3) for *Stochastics* at the Martin Luther University of Halle-Wittenberg, Germany, Winter 2018/19 (not realized)

[1] Shortened Evaluation Procedure according to § 99 UG (Universitätsgesetz 2002)

- Offer for a Deputy Professorship (W3) for *Stochastics* at the Albert Ludwig University of Freiburg, Germany, Winter 2017/18 (accepted)
- Offer for a Deputy Professorship (W3) for *Stochastics* at the Martin Luther University of Halle-Wittenberg, Germany, Winter 2017/18 (not realized)

Publications

Publications in International Journals

- Nakayama, T., Tappe, S. (2018): Wong-Zakai approximations with convergence rate for stochastic partial differential equations. *Stochastic Analysis and Applications* **36**(5), 832–857
- Tappe, S. (2017): Invariance of closed convex cones for stochastic partial differential equations. *Journal of Mathematical Analysis and Applications* **451**(2), 1077–1122
- Tappe, S. (2016): Affine realizations with affine state processes for stochastic partial differential equations. *Stochastic Processes and Their Applications* **126**(7), 2062–2091
- Tappe, S. (2015): Flatness of invariant manifolds for stochastic partial differential equations driven by Lévy processes. *Electronic Communications in Probability* **20**(40), 1–11
- Tappe, S. (2015): Existence of affine realizations for stochastic partial differential equations driven by Lévy processes. *Proceedings of The Royal Society of London. Series A. Mathematical, Physical and Engineering Sciences* **471**(2178)
- Platen, E., Tappe, S. (2015): Real-world forward rate dynamics with affine realizations. *Stochastic Analysis and Applications* **33**(4), 573–608
- Filipović, D., Tappe, S., Teichmann, J. (2014): Invariant manifolds with boundary for jump-diffusions. *Electronic Journal of Probability* **19**(51), 1–28
- Küchler, U., Tappe, S. (2014): Exponential stock models driven by tempered stable processes. *Journal of Econometrics* **181**(1), 53–63
- Tappe, S., Weber, S. (2014): Stochastic mortality models: An infinite dimensional approach. *Finance and Stochastics* **18**(1), 209–248
- Tappe, S. (2013): Compact embeddings for spaces of forward rate curves. *Abstract and Applied Analysis*, vol. **2013**, Article ID 709505, 6 pages

- Küchler, U., Tappe, S. (2013): Tempered stable distributions and processes. *Stochastic Processes and Their Applications* **123**(12), 4256–4293

- Tappe, S. (2013): The Yamada-Watanabe Theorem for mild solutions to stochastic partial differential equations. *Electronic Communications in Probability* **18**(24), 1–13

- Tappe, S. (2013): The Itô integral with respect to an infinite dimensional Lévy process: A series approach. *International Journal of Stochastic Analysis*, vol. **2013**, Article ID 703769, 14 pages

- Tappe, S. (2012): Some refinements of existence results for SPDEs driven by Wiener processes and Poisson random measures. *International Journal of Stochastic Analysis*, vol. **2012**, Article ID 236327, 24 pages

- Tappe, S. (2012): Existence of affine realizations for Lévy term structure models. *Proceedings of The Royal Society of London. Series A. Mathematical, Physical and Engineering Sciences* **468**(2147), 3685–3704

- Rüdiger, B., Tappe, S. (2012): Isomorphisms for spaces of predictable processes and an extension of the Itô integral. *Stochastic Analysis and Applications* **30**(3), 529–537

- Filipović, D., Tappe, S., Teichmann, J. (2010): Jump-diffusions in Hilbert spaces: Existence, stability and numerics. *Stochastics* **82**(5), 475–520

- Filipović, D., Tappe, S., Teichmann, J. (2010): Term structure models driven by Wiener processes and Poisson measures: Existence and positivity. *SIAM Journal on Financial Mathematics* **1**(1), 523–554

- Tappe, S. (2010): An alternative approach on the existence of affine realizations for HJM term structure models. *Proceedings of The Royal Society of London. Series A. Mathematical, Physical and Engineering Sciences* **466**(2122), 3033–3060

- Tappe, S. (2010): A note on stochastic integrals as L^2-curves. *Statistics and Probability Letters* **80**(13–14), 1141–1145

- Küchler, U., Tappe, S. (2009): Option pricing in bilateral Gamma stock models. *Statistics and Decisions* **27**(4), 281–307

- Küchler, U., Tappe, S. (2008): On the shapes of bilateral Gamma densities. *Statistics and Probability Letters* **78**(15), 2478–2484

- Filipović, D., Tappe, S. (2008): Existence of Lévy term structure models. *Finance and Stochastics* **12**(1), 83–115

- Küchler, U., Tappe, S. (2008): Bilateral Gamma distributions and processes in financial mathematics. *Stochastic Processes and Their Applications* **118**(2), 261–283

Publications in Refereed Conference Proceedings

- Schmidt, T., Tappe, S. (2015): Dynamic term structure modelling with default and mortality risk: New results on existence and monotonicity. *Banach Center Publications* **105**(2015), 211–238
- Mandrekar, V., Rüdiger, B., Tappe, S. (2013): Itô's formula for Banach space valued jump processes driven by Poisson random measures. *Seminar on Stochastic Analysis, Random Fields and Applications VII*, Progress in Probability **67**, Birkhäuser Verlag, 171–186

Submitted Articles

- Schmidt, T., Tappe, S., Yu, W. (2019): Infinite dimensional affine processes. 48 pages (`http://arxiv.org/abs/1907.10337`)

Review Articles

- Tappe, S. (2013): Foundations of the theory of semilinear stochastic partial differential equations. *International Journal of Stochastic Analysis*, vol. **2013**, Article ID 798549, 25 pages

Further Articles

- Filipović, D., Tappe, S., Teichmann, J. (2014): *Stochastic partial differential equations and submanifolds in Hilbert spaces.* Electronic appendix of the article "Invariant manifolds with boundary for jump-diffusions" (`http://arxiv.org/abs/1202.1076v2`)

Textbooks

- Tappe, S. (2013): *Einführung in die Wahrscheinlichkeitstheorie.* (translated title: *Introduction to Probability Theory*) Springer-Verlag Berlin Heidelberg, 303 pages

Theses

- Tappe, S. (2005): *Finite dimensional realizations for term structure models driven by semimartingales.* PhD Thesis, Humboldt University of Berlin, 139 pages
- Tappe, S. (2002): *Cellular resolutions of monomial ideals.* Diploma Thesis, University of Paderborn, 171 pages

Conference Presentations and Invited Talks

Presentations at International Conferences

- Acceptance for a presentation at the *Quantitative Methods in Finance – 2019 Conference*, University of Technology Sydney, Australia, December 2019
- Invitation as a speaker at the *Pre-conference Workshop in honour of Eckhard Platen*, University of Technology Sydney, Australia, December 2019
- *4th International Conference on Stochastic Methods*, Divnomorskoye, Russia, June 2019
- Plenary speaker at the *Quantitative Methods in Finance – 2018 Conference*, University of Technology Sydney, Australia, December 2018
- Invited speaker at the conference *Beyond the Classical Paradigm*, University of Technology Sydney, Australia, December 2018
- *40th Conference on Stochastic Processes and Their Applications*, Gothenburg, Sweden, June 2018
- *13th German Probability and Statistics Days*, Albert Ludwig University of Freiburg, Germany, March 2018
- Plenary speaker at the *Quantitative Methods in Finance – 2017 Conference*, University of Technology Sydney, Australia, December 2017
- Invited speaker at the conference *Beyond the Classical Paradigm*, University of Technology Sydney, Australia, December 2017
- Invited speaker at the conference *Risk: modelling, optimization and inference*, University of New South Wales, Sydney, Australia, December 2017
- Invited speaker at the session on *Stochastic Invariance* at the *39rd Conference on Stochastic Processes and Their Applications*, Moscow, Russia, July 2017
- Plenary speaker at the *Quantitative Methods in Finance – 2016 Conference*, University of Technology Sydney, Australia, December 2016
- Invited speaker at the conference *Beyond the Classical Paradigm*, University of Technology Sydney, Australia, December 2016
- *9th World Congress of the Bachelier Finance Society*, New York, USA, July 2016

- Invited speaker at the session *Infinite dimensional stochastic systems and applications* at the *11th AIMS Conference on Dynamical Systems, Differential Equations and Applications*, Orlando, USA, July 2016
- *12th German Probability and Statistics Days*, Ruhr University Bochum, Germany, March 2016
- Invited speaker at the conference *Frontiers in Stochastic Modelling for Finance*, Padua, Italy, February 2016
- Plenary speaker at the *Quantitative Methods in Finance – 2015 Conference*, University of Technology Sydney, Australia, December 2015
- Invited speaker at the conference *Frontiers of Quantitative Finance*, University of Technology Sydney, Australia, December 2015
- Invited speaker at the session on *Interest Rates* at the *7th General AMaMeF and Swissquote Conference*, EPF Lausanne, Switzerland, September 2015
- Invited speaker at the *Special Session on Stochastic Partial Differential Equations and Applications* at the *AMS Sectional Meeting*, Michigan State University, East Lansing, USA, March 2015
- *Quantitative Methods in Finance – 2014 Conference*, University of Technology Sydney, Australia, December 2014
- Invited speaker at the *Festkolloquium – in honor of Uwe Küchler's 70th birthday*, Humboldt University of Berlin, November 2014
- *8th World Congress of the Bachelier Finance Society*, Brussels, Belgium, June 2014
- Invited speaker at the International Workshop *Stochastic Processes and Differential Equations in Infinite Dimensional Spaces*, London, United Kingdom, April 2014
- *11th German Probability and Statistics Days*, University of Ulm, Germany, March 2014
- Invited speaker at the International Workshop *Infinite Dimensional Stochastic Systems: Theory and Applications*, Wittenberg, Germany, January 2014
- Plenary speaker at the *Quantitative Methods in Finance – 2013 Conference*, University of Technology Sydney, Australia, December 2013
- *1st European Actuarial Journal Conference*, University of Lausanne, Switzerland, September 2012

- *10th German Probability and Statistics Days*, University of Mainz, Germany, March 2012
- *Quantitative Methods in Finance – 2011 Conference*, University of Technology Sydney, Australia, December 2011
- Invited speaker at the *Second NTH Workshop on Finance and Insurance Mathematics*, Braunschweig University of Technology, Germany, July 2011
- *6th World Congress of the Bachelier Finance Society*, Toronto, Canada, June 2010
- *9th German Open Conference on Probability and Statistics*, University of Leipzig, Germany, March 2010
- Invited speaker at the *International Workshop on Mathematical Finance*, Tokyo Institute of Technology, Japan, February 2010
- Invited speaker at the *DYNSTOCH Meeting 2009*, Humboldt University of Berlin, Germany, October 2009
- *33rd Conference on Stochastic Processes and Their Applications*, Berlin University of Technology, Germany, July 2009
- *Workshop Finance and Insurance*, Friedrich Schiller University of Jena, Germany, March 2009
- Invited speaker at the *Workshop on Portfolio Risk Management*, Vienna University of Technology, Austria, September 2008
- Invited speaker at the *Minisymposium VI: Infinite dimensional SDEs in Finance* at the *5th World Congress of the Bachelier Finance Society*, London, United Kingdom, July 2008
- *8th German Open Conference on Probability and Statistics*, RWTH Aachen University, Germany, March 2008
- *Workshop and Mid-Term Conference on Advanced Mathematical Methods for Finance*, Vienna University of Technology, Austria, September 2007
- *RADON Workshop on Financial and Actuarial Mathematics for Young Researchers*, Johann Radon Institute for Computational and Applied Mathematics, Linz, Austria, May 2007
- *2nd Workshop on Stochastic Equations and Related Topics*, Friedrich Schiller University of Jena, Germany, July 2006

- *7th German Open Conference on Probability and Statistics*, Goethe University Frankfurt, Germany, March 2006
- *Workshop on Recent Developments in Financial and Actuarial Mathematics*, ETH Zürich, Switzerland, November 2005

Invited Seminar Talks and Lectures

- Presentation at a Workshop of the Freiburg-Strabourg research group on "Linking Finance and Insurance: Theory and Applications" at the *Freiburg Institute for Advanced Studies* of the *Albert Ludwig University of Freiburg*, Germany, June 2019
- Presentation at the Freiburg-Wien-Zurich Seminar, *Albert Ludwig University of Freiburg*, Germany, October 2018
- Presentation at a Workshop of the Freiburg-Strabourg research group on "Linking Finance and Insurance: Theory and Applications" at the *Freiburg Institute for Advanced Studies* of the *Albert Ludwig University of Freiburg*, Germany, October 2018
- Colloquium of Mathematics at the *Albert Ludwig University of Freiburg*, Germany, January 2018
- Probability and Statistics Seminar at the *University of Konstanz*, Germany, January 2018
- Analysis Seminar Augsburg-Munich at the *University of Augsburg*, Germany, January 2018
- Presentation at the *University of Klagenfurt* for a Professorship of Stochastic Processes, Austria, October 2017
- Colloquium in Probability at the *Ludwig Maximilian University of Munich*, Germany, July 2017
- Presentation at the *Humboldt University of Berlin* for a Lecturer Position in Probability, Germany, May 2017
- Probability Seminar at the *EPF Lausanne*, Switzerland, May 2017
- Presentation at the colloquium of the *Indian Statistical Institute, Bangalore Centre*, India, March 2017
- Seminar Talk at the *University of Paderborn*, Germany, February 2017
- Presentation at the *University of Regensburg* for a Lecturer Position in Mathematics, Germany, January 2017

- Presentation at the *University of Kassel* for a W2-Professorship of Stochastics, Germany, January 2017
- Presentation at the *University of Sydney* for a Lecturer/Senior Lecturer Position in Financial Mathematics, Australia, December 2016
- Presentation at the *University of Cologne* for a W3-Professorship of Applied Mathematics (Stochastics), Germany, October 2016
- Presentation at the colloquium of the *Indian Statistical Institute, Bangalore Centre*, India, September 2016
- Presentation at the *Ilmenau University of Technology* for a W2-Professorship of Probability Theory and Mathematical Statistics, Germany, May 2016
- Presentation at the *University of Innsbruck* for a Professorship of Stochastics, Austria, April 2016
- Presentation at the *Chemnitz University of Technology* for a W2-Professorship of Financial Mathematics, Germany, January 2016
- Presentation at the *University of Klagenfurt* for a Professorship of Stochastic Processes, Austria, June 2015
- Probability Seminar Essen, *University of Duisburg-Essen*, Germany, April 2015
- Presentation at the *University of Siegen* for a W2-Professorship of Stochastics, Germany, September 2014
- Presentation at the *University of Hamburg* for a W2-Professorship of Stochastic Processes and Their Applications, Germany, June 2014
- Presentation at the *University of Kassel* for a W3-Professorship of Mathematical Stochastics, Germany, June 2014
- Presentation at the *University of Trier* for a W2-Professorship of Stochastics, in particular Stochastic Processes and Their Applications, Germany, May 2014
- Presentation at the *University of Münster* for a W2-Professorship of Mathematical Stochastics, Germany, January 2014
- Seminar Talk at the *University of Leoben*, Austria, May 2013
- Presentation at the *Friedrich Schiller University of Jena* for a W2-Professorship of Stochastic Analysis, Germany, April 2013

- Seminar Talk at the *University of Technology Sydney*, Australia, March 2013
- Presentation at the *University of Paderborn* for a W2-Professorship of Stochastics, Germany, March 2013
- Invited Lecturer at the *DAA-Workshop for young Mathematicians*, Loccum, Germany, August 2011
- Presentation at the *Munich University of Technology* for a Junior Professorship of Financial Mathematics, Germany, December 2010
- Presentation at the *University of Hannover* for a Junior Professorship of Actuarial and Financial Mathematics, Germany, November 2010
- Presentation at the *Karlsruhe Institute of Technology* for a Junior Professorship of Financial Mathematics, Germany, November 2010
- Seminar Talk at the *University of Leipzig*, Germany, August 2010
- Probability Colloquium, *Humboldt University of Berlin*, Germany, June 2010
- Minicourse *Stochastic Partial Differential Equations*, Humboldt University of Berlin, Germany, June 2010
- Colloquium, Department of Statistics and Probability, *Michigan State University*, USA, May 2010
- Invited Speaker at the Minisymposium *Recent Advances in Mathematical Finance*, Aarhus School of Business, Denmark, March 2010
- Seminar Talk at the *Ludwig Maximilian University of Munich*, Germany, January 2010
- Presentation at the *Otto-von-Guericke University Magdeburg* for a Junior Professorship of Mathematical Stochastics, Germany, January 2009
- Seminar Talk at the *Munich University of Technology*, Germany, December 2008
- Presentation at the *Humboldt University of Berlin* for a Junior Professorship of Probability Theory and its Applications, Germany, October 2008
- Frankfurt MathFinance Colloquium, *Goethe University Frankfurt*, Germany, February 2008

- Seminar Talk at the *Vienna University of Technology*, Austria, November 2007
- Seminar Talk at the *University of Salzburg*, Austria, October 2007
- Seminar on Financial and Actuarial Mathematics, *Vienna University of Technology*, Austria, May 2007
- Seminar Talk at the *University of Bonn*, Germany, February 2007
- Seminar Talk at the *Stefan Banach International Mathematical Center*, Warsaw, Poland, September 2006
- Probability Colloquium, *Berlin University of Technology*, January 2006
- Seminar Talk at the *Munich University of Technology*, Germany, November 2005
- Seminar Talk at the *Stockholm School of Economics*, Sweden, October 2004

Research Visits

- Visiting Scientist at the *Indian Statistical Institute, Bangalore Centre*, India, February 2019
- Honorary Appointment as a Visiting Fellow, *University of Technology Sydney*, Australia, December 2018
- Honorary Appointment as a Visiting Professor, *University of Technology Sydney*, Australia, December 2017
- Visiting Scientist at the *Indian Statistical Institute, Bangalore Centre*, India, August 2017
- *Ludwig Maximilian University of Munich*, Germany, July 2017
- Visiting Scientist at the *Indian Statistical Institute, Bangalore Centre*, India, March 2017
- Honorary Appointment as a Visiting Professor, *University of Technology Sydney*, Australia, December 2016
- Visiting Scientist at the *Indian Statistical Institute, Bangalore Centre*, India, September 2016
- *University of Duisburg-Essen*, Germany, July 2015

- Honorary Appointment as a Visiting Professor, *University of Technology Sydney*, Australia, December 2014
- Honorary Appointment as a Visiting Professor, *University of Technology Sydney*, Australia, December 2013
- *University of Leoben*, Austria, May 2013
- Honorary Appointment as a Visiting Professor, *University of Technology Sydney*, Australia, March 2013
- Honorary Appointment as a Visiting Fellow, *University of Technology Sydney*, Australia, July/August 2012
- *EPF Lausanne*, Switzerland, August 2011
- *University of Leipzig*, Germany, August 2010
- *University of Wuppertal*, Germany, July 2010
- *Michigan State University*, USA, May 2010
- *Aarhus School of Business*, Denmark, March 2010
- *Hausdorff Research Institute for Mathematics*, Bonn, Germany, February 2008
- *Goethe University Frankfurt*, Germany, February 2008
- *University of Salzburg*, Austria, October 2007
- *Vienna University of Technology*, Austria, May 2007
- *University of Bonn*, Germany, February 2007
- *Stefan Banach International Mathematical Center*, Warsaw, Poland, September 2006
- *Stockholm School of Economics*, Sweden, November 2004

External Funding

- Grant of the DMV Subject Group Stochastics for financial resources up to 1000 Euros for a research visit at the Indian Statistical Institute, Bangalore Centre in India

Reviewing Service

International Journals

- *Reviewing Service for 40 International Journals:* Acta Mathematica Scientia, Advances in Applied Probability, Annals of Applied Probability, Annals of Finance, Applied Mathematical Finance, Applied Mathematics Letters, Discrete and Continuous Dynamical Systems, Electronic Communications in Probability, Electronic Journal of Probability, Finance and Stochastics, International Journal of Theoretical and Applied Finance, Journal of Applied Probability, Journal of Applied Statistics, Journal of Banking and Finance, Journal of Dynamical and Control Systems, Journal of Econometrics, Journal of Inequalities and Applications, Journal of Mathematical Analysis and Applications, Journal of Numerical Mathematics and Stochastics, Mathematical Finance, Mathematics and Financial Economics, Mediterranean Journal of Mathematics, Memoirs of the American Mathematical Society, Monatshefte für Mathematik, Physica D: Nonlinear Phenomena, Potential Analysis, Proceedings of The Royal Society of London. Series A. Mathematical, Physical and Engineering Sciences, Quantitative Finance, Review of Derivatives Research, Scandinavian Actuarial Journal, SIAM Journal on Financial Mathematics, SIAM Journal on Numerical Analysis, Statistica Sinica, Statistical Inference for Stochastic Processes, Statistics & Probability Letters, Stochastic Models, Stochastic Processes and Their Applications, Stochastics, Stochastics and Dynamics, Zeitschrift für die gesamte Versicherungswissenschaft

Review Databases

- Mathematical Reviews
- Zentralblatt MATH

Further Reviewing Service

- Referee for the PhD thesis of Tahirivonizaka Rahantamialisoa, University of Hannover, 2017
- External Referee for the PhD thesis of Piet Porkert, Vienna University of Technology, Austria, 2017
- Referee for Bachelor and Master Theses at the University of Hannover
- Referee for Bachelor and Master Theses at the Albert Ludwig University of Freiburg

University Management

- Deputy Head of the Institute of Probability and Statistics, University of Hannover, 2013 to 2017

Memberships

- *German Association of University Professors and Lecturers*, since 2011

Organizational Activities

- Organizer of the *Probability Seminar*, University of Hannover, Summer 2015, Winter 2015/16, Summer 2016 and Winter 2016/17
- Co-Organizer of the Colloquium *Actuarial and Financial Mathematics*, University of Hannover. Hereby, I have organized the following colloquia:
  - Colloquium about Stochastic Analysis (January 29, 2015)
  - Colloquium about Affine Processes and their Applications in Financial Mathematics (November 21, 2013)
  - Colloquium about Stochastic Analysis (June 27, 2013)
  - Colloquium about Stochastic Analysis (November 8, 2012)
- Moderator of the Seminar *Talks in Financial and Insurance Mathematics*, ETH Zurich, Winter 2010/11
- Organizer of the Contributed Session *Stochastic Partial Differential Equations and Related Topics* at the 34th Conference on Stochastic Processes and Their Applications, Osaka, Japan, September 2010
- I have acted as a chairman at the following conferences:
  - *40th Conference on Stochastic Processes and Their Applications*, Gothenburg, Sweden, June 2018 (Session on *Stochastic equations in finance*)
  - *9th World Congress of the Bachelier Finance Society*, New York, USA, July 2016 (Session on *Rate Models II*)
  - *12th German Probability and Statistics Days*, Ruhr University Bochum, Germany, March 2016 (Session on *Stochastic Analysis*)
  - *Workshop and Mid-Term Conference on Advanced Mathematical Methods for Finance*, Vienna University of Technology, Austria, September 2007

Teaching Activities

Summer 2019 (Albert Ludwig University of Freiburg)

- Risk Theory (Lecture and Exercise Class, 2+1 hours per week)

Winter 2018/19 (Albert Ludwig University of Freiburg)

- Mathematical Statistics (Lecture and Exercise Class, 4+2 hours per week)
- Insurance Mathematics (Lecture and Exercise Class, 2+2 hours per week)

Summer 2018 (Albert Ludwig University of Freiburg)

- Markov Chains (Lecture and Exercise Class, 2+2 hours per week)
- Stochastic Integration and Financial Mathematics (Exercise Class, 2 hours per week)

Winter 2017/18 (Albert Ludwig University of Freiburg)

- Stochastic Processes (Lecture and Exercise Class, 4+2 hours per week)
- Stochastic Analysis with Rough Paths (Lecture and Exercise Class, 2+2 hours per week)

Winter 2016/17 (University of Hannover)

- Financial Mathematics in continuous time (Lecture, 4 hours per week)

Summer 2016 (University of Hannover)

- Stochastic Analysis (Lecture, 4 hours per week)

Winter 2015/16 (University of Hannover)

- Affine Processes (Lecture, 4 hours per week)

Summer 2015 (University of Hannover)

- Stochastic Analysis (Lecture, 4 hours per week)

Winter 2014/15 (University of Hannover)

- Stochastics A (Service-Lecture, 2 hours per week)
- Stochastic Analysis (Seminar, 2 hours per week)

Summer 2014 (University of Hannover)

- Stochastic Analysis (Lecture, 4 hours per week)

Winter 2013/14 (University of Hannover)

- Stochastics II (Lecture, 4 hours per week)

Summer 2013 (University of Hannover)

- Stochastics I (Lecture, 4 hours per week)

Winter 2012/13 (University of Hannover)

- Stochastics II (Lecture, 4 hours per week)

Summer 2012 (University of Hannover)

- Stochastics I (Lecture, 4 hours per week)

Winter 2011/12 (University of Hannover)

- Recent Developments in Financial Mathematics (Lecture, 4 hours per week)

Summer 2011 (University of Hannover)

- Stochastic Analysis (Lecture, 4 hours per week)

Winter 2010/11 (ETH Zurich)

- Interest Rate Theory (Exercise Class, 2 hours per week and coordination of duties)

Summer 2009 (Vienna University of Technology)

- Stochastic Analysis (Lecture and Exercise Class, 3+1 hours per week)

Winter 2008/09 (Vienna University of Technology)

- Stochastic Analysis in Finance and Insurance (Exercise Class, 1 hour per week)

Summer 2007 (Ludwig Maximilian University of Munich)

- Analysis II (Exercise Class, 4 hours per week and coordination of duties)

Winter 2006/07 (Ludwig Maximilian University of Munich)

- Analysis I (Exercise Class, 4 hours per week and coordination of duties)

Summer 2006 (Ludwig Maximilian University of Munich)

- Analysis III (Exercise Class, 4 hours per week and coordination of duties)

Winter 2005/06 (Ludwig Maximilian University of Munich)

- Analysis II (Exercise Class, 4 hours per week and coordination of duties)

Advised Students

At the University of Hannover I have supervised the PhD Thesis of Tahirivonizaka Rahantamialisoa, which is about stochastic partial differential equations driven by random fields, and their applications to financial mathematics. Moreover, I have advised several Bachelor and Master Students; here is a list containing the names of the students and the titles of their theses:

Albert Ludwig University of Freiburg

- *Lena Burkhardt* (Bachelor Thesis): The Pólya urn model and its passage times. May 2019 to July 2019
- *Roman Haak* (Master Thesis): Algebraic structures of stochastic integrals and their applications. October 2018 to March 2019
- *Lorenz Denk* (Bachelor Thesis): Parameter estimation and pricing in discrete-time financial models. May 2018 to August 2018
- *Anna Maddux* (Bachelor Thesis): Symmetric random walks and a generalization of the Borel-Cantelli lemma. April 2018 to July 2018
- *Hang Zhou* (Master Thesis): Vector-valued stochastic integration and applications to financial mathematics. January 2018 to July 2018

University of Hannover

- *Tahirivonizaka Rahantamialisoa* (PhD Thesis): A unified approach to SPDEs driven by semimartingale fields. April 2012 to February 2017; the defence took place at March 15th, 2017
- *Apostolos Sideris* (Master Thesis): Affine processes on symmetric cones. July 2016 to January 2017

- *Pascal Schoppe* (Master Thesis): Pathwise uniqueness of the solutions to stochastic partial differential equations. April 2016 to October 2016
- *Kwok-Yin Choi* (Master Thesis): No-Arbitrage concepts in financial market models. February 2016 to August 2016
- *Waldemar Schäfer* (Bachelor Thesis): Characterizations and extensions of Panjer's class. July 2015 to October 2015
- *Gabriele Carulli* (Master Thesis): Functionals of affine processes with applications to finance. May 2015 to November 2015
- *Sarah Martens* (Master Thesis): The Skorokhod embedding problem. January 2015 to July 2015
- *Michael Fiedler* (Master Thesis): Markov semigroups and stochastic processes in infinite dimension. October 2014 to April 2015
- *Johanna Schmidt* (Master Thesis): A trajectorial interpretation of Doob's martingale inequalities. September 2014 to March 2015
- *Harald Klingebiel* (Bachelor Thesis): Convergence rates for the Berry-Esseen inequality. August 2014 to October 2014
- *Pascal Schoppe* (Bachelor Thesis): Deterministic and stochastic evolution equations. May 2014 to August 2014
- *André Löper* (Bachelor Thesis): Panjer distributions. May 2014 to July 2014
- *Sören Schwark* (Bachelor Thesis): Regression analysis of the linear dependence of financial data. April 2014 to June 2014
- *Tim Massel* (Bachelor Thesis): Coupling and uniform ergodicity of discrete Markov chains. April 2014 to July 2014
- *Martin Sanojca* (Bachelor Thesis): Bonferroni inequalities. February 2014 to May 2014
- *Apostolos Sideris* (Bachelor Thesis): Characteristic functions and infinitely divisible distributions. November 2013 to February 2014
- *Henry Wegener* (Master Thesis): Almost everywhere convergence of sequences of operators and its connection to modern and classical ergodic theory. November 2013 to May 2014
- *María Óskarsdóttir* (Master Thesis): On the uniqueness of solutions to stochastic differential equations. October 2013 to April 2014

- *Gabriele Carulli* (Bachelor Thesis): Option pricing in exponential Lévy models. October 2013 to November 2013

- *Sarah Klünder* (Bachelor Thesis): Bivariate exponential distributions. October 2013 to December 2013

- *Johanna Schirmer* (Bachelor Thesis): Markov chains with finite state space. October 2013 to December 2013

- *Nikolas Nüsken* (Master Thesis): The stochastic wave equation. August 2013 to February 2014

- *Tina Kolodinski* (Bachelor Thesis): Geometric characterizations of arbitrage free financial models. July 2013 to September 2013

- *Patrick Kiedrowski* (Bachelor Thesis): Laws of large numbers. May 2013 to July 2013

- *Florian Modler* (Master Thesis): Invariant manifolds and foliations for stochastic partial differential equations and random dynamical systems. June 2012 to September 2012

- *Dirk Skowasch* (Diploma Thesis): Lévy processes in financial mathematics. May 2012 to November 2012

Vienna University of Technology

- *Piet Porkert* (Diploma Thesis): On weak solutions to SDEs in Hilbert spaces. August 2010 to February 2011

Ludwig Maximilian University of Munich

- *Yong Shang* (Diploma Student of Damir Filipović): Heath-Jarrow-Morton model with square root volatility. August 2007 to February 2008

Seven of my Master Students obtained offers for PhD positions; namely:

- Apostolos Sideris (Dresden University of Technology, Germany)

- Pascal Schoppe (University of Augsburg and Dresden University of Technology, Germany)

- Michael Fiedler (University of Duisburg-Essen, University of Hildesheim and University of Paderborn, Germany)

- Henry Wegener (Albert Einstein Institute Hannover and Martin Luther University of Halle-Wittenberg, Germany)

- María Óskarsdóttir (University of Leuven, Belgium)

- Nikolas Nüsken (Imperial College London, United Kingdom)
- Piet Porkert (Vienna University of Technology, Austria)

This CV is current as of July 30th, 2019.