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Curriculum Vitae

Aktuelle Position

2015 – **Professor für Mathematische Stochastik**, *Mathematisches Institut, Universität Freiburg.*

Spezialgebiete

Finanzmathematik, Statistik, Stochastik

Berufliche Laufbahn

1998 **Commerzbank London, Basket Trading.**

1998 – 2003 **Mathematisches Institut der Justus Liebig Universität Giessen**, *wissenschaftlicher Assistent bei Prof. Dr. W. Stute.*

2003 – 2008 **Mathematisches Institut der Universität Leipzig**, *Juniorprofessor für Finanzmathematik.*

2008 **HVB Institut für Finanzmathematik, Techn. Universität München**, *Vertretungsprofessor.*

2012 **Université d'Évry**, *Gastprofessor.*

2013 **ETH Zürich**, *Gastprofessor.*

2008 – 2015 **Mathematisches Institut der TU Chemnitz**, *Professor für Finanzmathematik.*

Qualifikation

1998 **Diplom**, *in Mathematik, Justus Liebig Universität Giessen.*

2003 **Dr. rer. nat.**, *Justus Liebig Universität Giessen.*

2006 **Positive Evaluation der Juniorprofessur**, *von Prof. T. Björk und Prof. D. Filipović.*

Mitgliedschaften

Bachelier Finance Society. Mitglied des Relations and Education Committee

(DMV) Deutsche Mathematiker Vereinigung und ihre AG Stochastik

(DGVM) Deutsche Gesellschaft für Versicherungs- und Finanzmathematik

Korrespondent der DAV (Deutsche Aktuarsvereinigung)
Mitglied im Vorstand der DMV-Fachgruppe Stochastik e.V.

Betreute Arbeiten

- W. Khosrawi (aktuell) General Markov processes
- J. Wergieluk (aktuell) Energy markets
- M. Agiota (aktuell) Polynomial models in energy modelling
- W. Yu (aktuell) Filtering problems in infinite dimensional affine term structure models
- F. Gehmlich (2014) A general approach to credit portfolio models
- L. Xu (2010): On Galerkin Approximations for the Zakai Equation with Diffusive and Point Process Observations (mit Prof. R. Frey)
- 2013 Die Bachelor Arbeit von G. Leimcke gewann 2013 den Assenagon Preis, Chemnitz
- 2012 Die Bachelor Arbeit von R. Hoffmann gewann 2012 den Assenagon Preis, Chemnitz
- 2011 Die Diplomarbeit von L. Schmidt (TU München, gemeinsam betreut mit Prof. M. Scherer) gewann 2011 den Assenagon Preis

Editorielle Aktivitäten

- 2013 – Associate Editor für das Journal of Banking and Finance
- 2011 – Associate Editor für das International Journal of Theoretical and Applied Finance
- 2009 – Associate Editor für die Statistics and Probability Letters

Bücher

- 2011 C. Czado and T. Schmidt. "Mathematische Statistik", Springer. 262 pages

Ausgewählte referierte Fachbeiträge

- 2015 T. Schmidt and S. Tappe. "Dynamic Term Structure Modelling with Default and Mortality Risk: New Results on Existence and Monotonicity", Forthcoming in Banach Center Publications. arXiv:1306.6267
- 2014 T. Schmidt. "Catastrophe insurance modelled by shot-noise processes". Risks 2014 2 ,3-24
- 2013 E. Eberlein, Z. Grabc and T. Schmidt. "Discrete tenor models for credit risky portfolios driven by time inhomogeneous Lévy processes". SIAM Journal of Financial Mathematics 4 (1), 616 – 649
- 2013 R. Frey, T. Schmidt and L. Xu, "On Galerkin Approximations for the Zakai Equation with Diffusive and Point Process Observations". SIAM Journal of Numerical Analysis 51 (4), pp. 2036 – 2062
- 2012 R. Frey and T. Schmidt. "Pricing and Hedging of Credit Derivatives via the Innovations Approach to Nonlinear Filtering". *Finance and Stochastics* 16, p. 105 – 133

- 2012 M. Scherer, L. Schmid and T. Schmidt, "Shot-Noise Driven Portfolio Default Models". *European Actuarial Journal* 2, p. 161 – 186
- 2012 O. Hartmann, P. Schuetz, W. Albrich, S. Anker, B. Müller and T. Schmidt. "Time-dependent Cox regression: Serial measurement of cardiovascular biomarker proadrenomedullin improves survival prediction in patients with lower respiratory tract infection". *International Journal of Cardiology* 161, p. 166 – 173
- 2012 T. Schmidt and J. Zabczyk. "CDO term structure modeling with Lévy processes and the relation to market models". *International Journal of Theoretical and Applied Finance* 15 (19 pages)
- 2011 D. Filipović, L. Overbeck and T. Schmidt, "Dynamic CDO Term Structure Modeling", *Mathematical Finance* 21, p. 53 – 71
- 2011 A. Herbertsson, J. Jang and T. Schmidt. "Pricing basket default swaps in a tractable shot-noise model". *Statistics and Probability Letters* 81, p.1196 – 1207
- 2010 D. Filipovic and T. Schmidt. "Pricing and Hedging of CDOs: A Top-Down Approach". In: " Contemporary Quantitative Finance", Chiarella, C. and Novikov, A. (Eds.) Springer, p. 231 – 254
- 2010 R. Gaspar and T. Schmidt. "CDOs in the light of the Current Crisis". In: "Financial Risks: New Developments in Structured Product & Credit Derivatives", M. Jeanblanc and C. Gouriéroux (Eds), *Economica*
- 2009 R. Frey and T. Schmidt. "Pricing Corporate Securities under Noisy Asset Information". *Mathematical Finance* 19, p. 403 – 421
- 2008 T. Schmidt and A. Novikov, "A Structural Model with Random Default Boundary". *Applied Mathematical Finance* 15, p. 183 – 203
- 2008 T. Schmidt. "Modelling Energy Markets with Extreme Spikes". In "Mathematical Control Theory and Finance" Grossinho, R.; Guerra, M.; Sarychev, A. Shiryayev, A (Eds.),
- 2008 K. Giesecke, T. Schmidt and S. Weber "Measuring the risk of large losses". *Journal of Investment and Management* 6 (4) p. 1 – 15.
- 2008 T. Schmidt and L. Xu. "Some limit results on the Haar-Fisz transform for inhomogeneous Poisson signals". *Journal for Analysis and its Applications* 27 No. 4, 475 - 489
- 2008 T. Altmann, T. Schmidt and W. Stute. "A Shot Noise Model for Financial Assets ". *International Journal of Theoretical and Applied Finance*, Vol 11, No. 1, p. 87 – 106
- 2007 T. Schmidt, S. Teis and E. Reiche. "Der Zusammenhang von EUA- und Strompreis - eine klare Sache?". *Zeitschrift f. Energiewirtschaft* 31 (2), p. 155-160
- 2007 T. Schmidt and W. Stute. "Shot-Noise Processes and the Minimal Martingale Measure". *Statistics & Probability Letters*
- 2006 T. Schmidt. "An Infinite Factor Model for Credit Risk". *International Journal of Theoretical and Applied Finance* 9, p. 43 – 68
- 2005 F. Özkan and T. Schmidt. "Credit Risk with Infinite Dimensional Lévy Processes". *Statistics and Decisions* 23, p. 281 – 299

- 2005 S. Weber and T. Schmidt. "Alternativen zu Value at Risk". *Zeitschrift f. d. gesamte Versicherungswissenschaft* 4
- 2004 T. Schmidt and W. Stute. "Credit Risk - A Survey". *Contemporary Mathematics*, Volume 336, p. 75 - 115
- 2000 E. Lücker, K. Failing and T. Schmidt. "Determination of analytical limits in solid sampling ETAAS: a new approach towards the characterization of analytical quality in rapid methods", *Fresenius J Anal Chem* (366):137-141

Buchpublikationen und anderes

- 2012 F. Gehmlich, Z. Grabc and T. Schmidt. "Pricing and Calibration in Market Models". In "Credit Securitisations and Derivatives", H. Scheule and D. Rösch (Eds), Wiley
- 2011 R. Frey and T. Schmidt. "Filtering and Incomplete Information", in: "Credit Risk Frontiers", Wiley, T. Bielecki et al (Eds)
- 2011 D. Filipović, L. Overbeck and T. Schmidt. "Doubly Stochastic CDO Term Structures". In "Seminar on Stochastic Analysis, Random Fields and Applications IV" Dalang, Robert C.; Dozzi, Marco; Russo, Francesco (Eds.)
- 2010 T. Schmidt. "Correlation and correlation risk", in "Encyclopedia of Quantitative Finance", R. Cont (Ed.)
- 2010 T. Schmidt. "Copulas and dependent measurement ", in "Encyclopedia of Quantitative Finance", R. Cont (Ed.)
- 2008 R. Gaspar and T. Schmidt. "On the Pricing of Collateralized Debt Obligations", in "The Credit Derivatives Handbook", G.N. Gregoriou and P. Ali (Eds), McGraw-Hill
- 2008 T.Schmidt. "Hybrid Calibration Procedures for Term Structure Models". In "New Frontiers in Risk Management", D. Olson and D. Wu (Eds.), Springer
- 2007 T. Schmidt. "Coping with Copulas". Risk Books, J. Rank (Ed.), Risk Books

Eingereichte Arbeiten

- 2013 I. Klein, T. Schmidt and J. Teichmann. "When roll-overs do not qualify as numéraire: bond markets beyond short rate paradigms". arXiv:1310.0032
- 2013 T. Schmidt and S. Tappe. "Dynamic Term Structure Modelling with Default and Mortality Risk: New Results on Existence and Monotonicity". Forthcoming in *Stochastic Analysis and Control*, Banach Center Publications: arXiv:1306.6267
- 2013 T. Schmidt and F. Gehmlich. "Dynamic Defaultable Term Structure Modelling beyond the Intensity Paradigm", arXiv:1411.4851