

PROF.

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Professional experience

2003

Ph.D. in Mathematics, Justus-Liebig Universität Gießen

„Credit Risk Modeling with Random Fields“

Dec. 2003-Oct. 2008

Mathematical Institute, University Leipzig

Juniorprofessor

April-Sep. 2008

HVB Institute for Mathematical Finance, Techn. University Munich

Replacement professorship in Mathematical Finance

Since October 2008

Mathematical Institute, Chemnitz University of Technology

Professor of Mathematical Finance

Further activities:

- Associate Editor for Statistics and Probability Letters
- Associate Editor for International Journal in Theoretical and Applied Finance

Books

1. C. Czado and T. Schmidt, „Mathematische Statistik“, 2011. 262 pages, Springer.

Refereed Publications

1. R. Frey and T. Schmidt. „Pricing and Hedging of Credit Derivatives via the Innovations Approach to Nonlinear Filtering“, 2012, Finance and Stochastics 16, p. 105 - 133
2. D. Filipović, L. Overbeck and T. Schmidt, „Dynamic CDO Term Structure Modeling“, 2011, Mathematical Finance 21, p. 53 – 71
3. A. Herbertsson, J. Jang and T. Schmidt, „Pricing basket default swaps in a tractable shot-noise model“, 2011, Statistics and Probability Letters, in press
4. T. Schmidt and J. Zabczyk, „CDO term structure modeling with Lévy processes and the relation to market models“, 2010, Forthcoming in International Journal of Theoretical and Applied Finance, DOI: 10.1142/S0219024911006462
5. D. Filipović and T. Schmidt, „Pricing and Hedging of CDOs: A Top-Down Approach“, 2010, Contemporary Quantitative Finance, Chiarella, C. and Novikov, A. (Eds.) Springer, p. 231 – 254
6. R. Frey and T. Schmidt, „Pricing Corporate Securities under Noisy Asset Information“ 2009. Mathematical Finance 19 (3), p. 403-421
7. D. Filipovic, L. Overbeck and T. Schmidt. „Doubly Stochastic CDO Term Structures“, 2011. In „Seminar on Stochastic Analysis, Random Fields and Applications IV“ Dalang, Robert C.; Dozzi, Marco; Russo, Francesco (Eds.)
8. T. Schmidt and A. Novikov, „ A Structural Model with Random Default Boundary“, 2008. Applied Mathematical Finance 15 (2), p. 183-203
9. T. Altmann, T. Schmidt and W. Stute, „A Shot Noise Model for Financial Assets“, 2008. International Journal of Theoretical and Applied Finance 11 (1), p. 87-106
10. T. Schmidt, „Modelling Energy Markets with Extreme Spikes“, 2008. In *Mathematical Control Theory and Finance*, Grossinho, Guerra, Sarychev, Shiryaev (Eds.), Springer
11. K. Giesecke, T. Schmidt and S. Weber, „Measuring the risks of large losses“, 2008. Journal of Investment Management 6, 1-15
12. T. Schmidt and L. Xu, „Some limit results on the Haar-Fisz transform for inhomogeneous Poisson signals“, 2008. Journal of Analysis and its Applications 4, 475-489
13. T. Schmidt and W. Stute, „Shot Noise Processes and the Minimal Martingale Measure“, 2007. Statistics & Probability Letters 77: 1332-1338
14. T. Schmidt, S. Teis and E. Reiche, „Der Zusammenhang von EUA- und Strompreis – eine klare Sache?“, 2007. Zeitschrift f. Energiewirtschaft 31(2), p. 155-160
15. T. Schmidt. "An Infinite Factor Model for Credit Risk", 2006. International Journal of Theoretical and Applied Finance 9(1): 43-68
16. F. Özkan and T. Schmidt. "Credit Risk with Infinite Dimensional Lévy Processes", 2005. Statistics and Decisions 23: 281-299

17. S. Weber and T. Schmidt. "Alternativen zu Value at Risk". Zeitschrift für die gesamte Versicherungswissenschaft 4, 2005
18. T. Schmidt and W. Stute, "Credit Risk – A Survey", Contemporary Mathematics 2004, Volume 336, p. 75 - 115
19. 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' Journal of Analytical Chemistry (2000) 366: 137-141.

Publications in books and others

1. R. Frey and T. Schmidt. „Filtering and Incomplete Information“, in „Recent Advancements in the Theory and Practice of Credit Derivative“, 2010, Wiley, T. Bielecki et al (Eds)
2. R. Gaspar and T. Schmidt, „CDOs in the light of the Current Crisis“, 2010. Financial Risks: New Developments in Structured Product & Credit Derivatives, M. Jeanblanc and C. Gouriéroux (Eds), Economica
3. T. Schmidt. "Correlation and correlation risk", 2010. Encyclopedia of Quantitative Finance, R. Cont (Ed.)
4. T. Schmidt. "Copulas and dependence measurement ", 2010. Encyclopedia of Quantitative Finance, R. Cont (Ed.)
5. R. M. Gaspar and T. Schmidt, "On the Pricing of CDOs", In "Credit Derivatives", P. U. Ali and G. N. Gregoriou (Eds.), Chapman Hall, 2008
6. T. Schmidt, "Hybrid Calibration Procedures for Term Structure Models", In "New Frontiers in Risk Management", D. Olson and D. Wu (Eds.), Springer 2008
7. T. Schmidt, "An Introduction to Copulas", 31 pages, 2007. In "Copulas: From Theory to Applications in Finance", J. Rank (Ed.), Risk Books
8. T. Schmidt, "Hybrid Calibration of Defaultable Term Structures with Gaussian Random Fields", 2007. Proceedings of ICMI, Shanghai p. 371-376
9. T. Schmidt, "Momentenschätzer im M-ARCH Modell", Justus-Liebig-University Gießen (1998), Diploma thesis
10. T. Schmidt, "Credit Risk Modeling with Random Fields", Dissertation, University Gießen (2003)

Working papers and others, see www.tu-chemnitz.de/mathematik/fima

1. E. Eberlein, Z. Grabc and T. Schmidt. "Market models for CDOs driven by Lévy processes.", 2010, submitted to the SIAM Journal of Financial Mathematics
2. R. Frey, T. Schmidt and L. Xu, „On Galerkin Approximations for the Zakai Equation with Diffusive and Point Process Observations”, 2011, submitted to the SIAM Journal of Numerical Analysis
3. R. Gaspar and T. Schmidt, „Credit Risk Modelling with Shot Noise Effects”, 2011
4. J. Jakubowski, M. Nieweglowski and T. Schmidt, „Defaultable Term Structures with Ratings”, 2012
5. M. Scherer, L. Schmid and T. Schmidt, „Shot-Noise Driven Portfolio Default Models”, 2011
6. M. Moreno, T. Schmidt and P. Serrano, „Spectral Estimation of Shot-Noise Processes“, in preparation
7. F. Gehmlich, J. Pecher and T. Schmidt, „An Empirical Analysis of Energy Markets”, 2012