Curriculum Vitae

Name:	Dr. Ernst August Freiherr von Hammerstein
Born:	26.03.1974 in Hameln/Weser, German citizen

Employments and professional experiences

Since 01/2024	Course coordinator for M.Sc. Mathematics in Data and Technology
07/2021	Appointment to Akademischer Oberrat (Senior Lecturer)
Since 10/2016	Akademischer Rat (Lecturer) at the Department of Mathematical Stochastics, Faculty of Mathematics and Physics, University of Freiburg
10/2013 – 09/2016	Member of academic staff (Postdoc) of the Department of Quantitative Finance, Faculty of Economics and Behavioral Sciences, University of Freiburg
10/2011 – 09/2013	Postdoc in the Research Group "Financial Mathematics: Pricing of Risks in Incomplete Markets", Faculty of Economics and Behavioral Sciences, University of Freiburg
01/2011 – 09/2011	Postdoc in the Research Group "Financial Mathematics: Pricing of Risks in Incomplete Markets", Faculty of Economics and Behavioral Sciences, and research assistant at the Department of Mathematical Stochastics, Faculty of Mathematics and Physics, University of Freiburg
05/2001 – 03/2010	Scientific employee at the Department of Mathematical Stochastics, Faculty of Mathematics and Physics, University of Freiburg Teaching activities: scientific computing courses (*Statistisches Praktikum*, *Praktikum zu Stochastik*), mentoring of diploma students
06/2002 – 12/2005	System administrator of the department, setup and maintenance of a network of Linux clients as well as the department's file-, web- and mail-server

Education

01/2011	PhD (Dr. rer. nat.), University of Freiburg Title of the thesis: *Generalized hyperbolic distributions: Theory and applications to CDO pricing* (supervisor: Prof. Dr. Ernst Eberlein)
05/2001 – 12/2010	PhD studies at the Department of Mathematical Stochastics, University of Freiburg
04/2001	Diploma in mathematics (Dipl.-Math.) at the University of Freiburg Title of the thesis: *GARCH-Volatilitätsmodelle für Aktienindizes* (supervisor: Prof. Dr. Ernst Eberlein)
10/1993 – 04/2001	Studies in mathematics and physics at the University of Freiburg
06/1993	Abitur, Martinus-Gymnasium Linz/Rhein

Surveying Experiences

Journals: Applied Mathematical Finance
Asia-Pacific Financial Markets
Electronic Communications in Probability
International Journal of Theoretical and Applied Finance
Journal of Credit Risk
Journal of Economic Theory
Journal of Multivariate Analysis
Quantitative Finance
Stochastic Processes and Their Applications

Articles and book chapters

[4] *Tail behaviour and tail dependence of generalized hyperbolic distributions.* In: Kallsen, J., Papapantoleon, A. (Eds.): Advanced Modelling in Mathematical Finance – A Festschrift in honour of Ernst Eberlein, Springer (2016), 3-40. DOI: *http://dx.doi.org/10.1007/978-3-319-45875-5*

[3] *Optimality of payoffs in Lévy models.* International Journal of Theoretical and Applied Finance 17(6), 1450041 (2014). DOI: *http://dx.doi.org/10.1142/S0219024914500411* (with E. Lütkebohmert, L. Rüschendorf, V. Wolf)

[2] *Advanced credit portfolio modeling and CDO pricing.* In: W. Jäger, H.-J. Krebs (editors), Mathematics – Key technology for the future, Springer (2008), 253–280 (with E. Eberlein and R. Frey)

[1] *Generalized Hyperbolic and Inverse Gaussian Distributions: Limiting Cases and Approximation of Processes.* In: Seminar on stochastic analysis, random fields and applications IV, R. Dalang, M. Dozzi, F. Russo (editors), Progress in Probability 58, Birkhäuser (2004), 221–264 (with E. Eberlein)

Conference Proceedings

[1] *Construction of cost-efficient self-quanto calls and puts in exponential Lévy models.* In: Vanmaele, M., Deelstra, G., De Schepper, A., Dhaene, J., Schoutens, W., Vanduffel, S., Vyncke, D. (Eds.): Handelingen Contactforum Actuarial and Financial Mathematics Conference, Interplay between Finance and Insurance, February 6–7, 2014, Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, Brussel, 2014 (with E. Lütkebohmert, L. Rüschndorf, V. Wolf)

Dissertation

[1] *Generalized hyperbolic distributions: Theory and applications to CDO pricing.* PhD thesis, University of Freiburg (2011). Available at *http://www.freidok.uni-freiburg.de/volltexte/7974/*

Talks

[7] *Optimality of payoffs in Lévy models*
Actuarial and Financial Mathematics Conference, Brussels, 06.02.–07.02.2014

[6] *Optimality of payoffs in Lévy models*
Dynstoch Conference 2013, Copenhagen, 17.04. – 19.04.2013

[5] *Laplace and Fourier based valuation methods in exponential Lévy models*
(invited talk) Graduate School of Mathematical Sciences, University of Tokyo, 28.01.2013

[4] *Cost-efficient strategies for Lévy markets*
7th World Congress of the Bachelier Finance Society, Sydney, 19.06. – 22.06.2012

[3] *Dependence structures of generalized hyperbolic models and applications to CDO pricing*
(invited talk) Young Researchers Workshop on Finance 2011, Tokyo, 01.03. – 04.03.2011

[2] *Advanced credit portfolio modeling and CDO pricing*
5th World Congress of the Bachelier Finance Society, London, 15.07. – 19.07.2008

[1] *Valuation of CDSs and CDOs using generalized hyperbolic distributions*
BMBF Workshop on Credit Risk Management, Freising (Germany), 27.02. – 04.03.2006

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