

## Curriculum Vitae

Name: Prof. Dr. Eva-Maria Lütkebohmert-Holtz, geb. Lütkebohmert  
 Born: 01.01.1979 in Münster  
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 Address: Department of Financial Mathematics  
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## Professional Career

09/2013 – today Full Professor for Financial Mathematics at the Albert-Ludwigs University of Freiburg  
 10/2009 – 08/2013 Juniorprofessor (W1, tenure track) at the Institute for Research in Economic Evolution at the Albert-Ludwigs-University of Freiburg  
 Head of the Research Group „Financial Mathematics: Pricing of Risks in Incomplete Markets“  
 10/2006 – 09/2009 Juniorprofessor (W1) at the Institute for Social Sciences and Economics at the University of Bonn  
 Member of the cluster of excellence „Mathematics: Foundations, Models, Applications“ and the Bonn Graduate School of Economics  
 08/2005 – 09/2006 Research Analyst at the „Department for Banking Supervision“ at the Deutsche Bundesbank  
 Member of the subgroup „Concentration risks“ of the Research Task Force of the Basel Committee of Banking Supervision  
 09/2004 – 07/2005 Research assistant at the Institute for Applied Mathematics at the University of Bonn

## Education

12/2004 PhD (Dr. rer. nat.) at the Institute for Applied Mathematics  
 Title of the Thesis: *Finite dimensional realizations of interest rate models with jumps and an asymptotic expansion for the Black-Scholes model with generalized volatility.* (supervised by Prof. Dr. S. Albeverio)  
 10/2002 – 08/2004 PhD studies at the University of Bonn  
 10/2002 Diplom in mathematics  
 10/1998 – 10/2002 Studies in mathematics at the Universities of Bonn and Toronto  
 06/1998 Abitur, Münster

## Scholarships and Awards

07/2005	Award for the dissertation from the „Gesellschaft von Freunden und Förderern der Universität Bonn“
04/2003 – 08/2004	Scholarship of the German National Academic Foundation
10/2002 – 03/2003	Scholarship of the Bonn International Graduate School
08/2001 – 05/2002	Scholarship from the University of Bonn for the student exchange with the University of Toronto

## Surveying Experiences

Journals:	Review of Finance Journal of Mathematical Finance Journal of Credit Risk Journal of Computational Finance IMA Journal of Management Mathematics International Journal of Theoretical and Applied Finance International Journal of Approximate Reasoning Journal of the Operation Research Society Operation Research Letters Intern. Journal of Financial Engineering and Risk Management
Conferences:	<i>Pfingsttagung 2008</i> des Verbands der Hochschullehrer für Betriebswirtschaft in Berlin, 15.05. – 17.05.2008 <i>European Economic Association Annual Congress</i> Mailand, 27.08. – 31.08.2008 <i>European Economic Association Annual Congress 2009</i> Barcelona, 23.08. – 27.08.2009 <i>Society of Financial Studies Cavalcade 2012</i> Virginia, 21.05. – 25.05.2012
Foundations:	Surveying for the German National Academic Foundation

## Publications

### Monographs

- [1] *Concentration Risk in Credit Portfolios*.  
Springer Verlag, European Actuarial Academy (EAA) Lecture Notes, 2009.

### Articles

- [1] *Value-at-risk computations in stochastic volatility models using second order weak approximation schemes*. International Journal of Theoretical and Applied Finance, forthcoming (with L. Matchie).
- [2] *A multi-period bank run model for liquidity risk*.  
Review of Finance, forthcoming (with G. Liang and Y. Xiao).
- [3] *Granularity adjustment for regulatory capital assessment*. International Journal of Central Banking 9(3), pp. 33-71, 2013 (with M.B. Gordy).
- [4] *Failure of the saddle-point method in the presence of double defaults*.  
Journal of Risk 15(1), pp. 71–89, 2012.
- [5] *An asset drop model as an alternative to the treatment of double defaults within the Basel framework*. Journal of Credit Risk 3(1), pp. 41–63, 2012 (with S. Ebert).
- [6] *Treatment of double default effects within the granularity adjustment for Basel II*.  
Journal of Credit Risk 7 (1), pp. 1–31, 2011 (with S. Ebert).
- [7] *Absolutely continuous laws of jump-diffusions in finite and infinite dimensions with applications to mathematical finance*.  
SIAM Journal of Mathematical Analysis 40 (5), pp. 2132-2153, 2009 (with B. Forster and J. Teichmann).
- [8] *Granularity adjustment for Basel II*.  
Discussion paper, Series „Banking and Financial Studies“ 01/2007, Deutsche Bundesbank 2007 (with M.B. Gordy).
- [9] *Studies on credit risk concentration: an overview of the issues and a synopsis of the results from the Research Task Force project*.  
BCBS Publications No. 15 (available at [http://www.bis.org/publ/bcbs\\_wp15.htm](http://www.bis.org/publ/bcbs_wp15.htm)) November 2006 (with P. Asberg Sommar, M. Birn, J. Demuynck, K. Düllmann, A. Foglia, M. B. Gordy, T. Isogai, C. Lotz, C. Martin, N. Masschelein, C. Pearce, J. Saurina, M. Scheicher, C. Schmieder, Y. Shiina, K. Tsatsaronis, H. Walker).
- [10] *An asymptotic expansion for the Black-Scholes model with generalized volatility*.  
Bulletin des Sciences Mathématiques 128 (8), pp. 661–685, 2004.

### Peer-Reviewed Conference Proceedings

- [1] *Quantification of liquidity risk in a two-period model*.  
Proceedings of Actuarial and Financial Mathematics Conference, pp. 51-60, Brussels (Belgium), 2011 (with G. Liang and Y. Xiao).
- [2] *Quantification of idiosyncratic risk in the ASRF model*.  
Proceedings of the Third Brazilian Conference on Statistical Modelling in Insurance and Finance, pp. 160–165, Maresias (Brazil) 2007 (with M.B. Gordy).

## Dissertation

- [1] *Finite dimensional realizations of interest rate models with jumps and an asymptotic expansion for the Black-Scholes model with generalized volatility.*  
Dissertation, Universität Bonn, 2004.

## Current Research Papers

- [1] *Optimality of payoffs in Lévy models.* Submitted, 2013 (with E.A. von Hammerstein, L. Rüschendorf und V. Wolf).
- [2] *Funding liquidity, debt tenor structure, and creditor's belief: An exogenous dynamic debt run model.* Submitted, 2013 (with G. Liang and W. Wei).
- [3] *Optimal debt maturity structure in a model with market and funding liquidity risk.* Working Paper, 2013 (with D. Oeltz and Y. Xiao).

## Talks at Conferences

### Talks at Internationale Conferences and Workshops

- [1] *A Continuous Time Structural Model for Insolvency, Recovery and Rollover Risks.* 30<sup>th</sup> International French Finance Association Conference, Lyon, 28. – 31.05.2013.
- [2] *An integrated structural model for market, credit and liquidity risk.* Conference on Current Topics in Mathematical Finance, Vienna, 18. – 19.04.2013.
- [3] *Optimal Capital Structure and Default Policy in an Integrated Model for Market, Credit and Liquidity Risk.* IMA Conference on Mathematics in Finance, Edinburgh, 08. – 09.04.2013.
- [4] *A Continuous Time Structural Model for Insolvency, Recovery and Rollover Risks.* 6th Financial Risks International Forum: Liquidity Risk, Paris, 25. – 26.03.2013.
- [5] *A Multi-Period Bank Run Model for Liquidity Risk.* DAA Workshop für junge Mathematiker, Schloss Reisenburg, 21.09. – 22.09.2012.
- [6] *A Multi-Period Bank Run Model for Liquidity Risk.* ICIAM, Vancouver 18.07. – 22.07.2011.
- [7] *A Multi-Period Bank Run Model for Liquidity Risk.* Actuarial and Financial Mathematics Conference, Brüssel 10.02. – 11.02.2011.
- [8] *A Multi-Period Bank Run Model for Liquidity Risk.* Modeling and Managing Financial Risks, Paris 10.01. – 13.01.2011.
- [9] *Treatment of Double Default Effects within the Granularity Adjustment for Basel II.* Conference on Large Portfolio, Concentration and Granularity, Paris 15.03. – 16.03.2010.
- [10] *Accounting for Guarantees within the Granularity Adjustment for Basel II.* 3<sup>rd</sup> International Financial Research Forum: Risk Management and Financial Crisis, Paris 19.03. – 20.03.2009.
- [11] *Absolutely continuous laws of jump-diffusions in finite and infinite dimensions with applications to mathematical finance.* 8<sup>th</sup> German Open Conference on Probability and Statistics, Aachen 04.03. – 07.03.2008.
- [12] *Granularity Adjustment for Basel II.* 2nd Expert Forum on Advanced Techniques in Stress Testing: Applications for Supervisors, organized by the IMF and De Nederlandsche Bank, Amsterdam 23.10. – 24.10.2007.
- [13] *Granularity Adjustment for Basel II.* Third Brazilian Conference on Statistical Modelling in Insurance and Finance, Maresias (Brazil) 25.03. – 30.03.2007.
- [14] *Granularity Adjustment for Basel II.* RTF and AIGV Meeting, Amsterdam 18.09. – 19.09.2006.
- [15] *Granularity Adjustment for the Basel II - Model.* RTF Subgroup Meeting, Banca d'Italia, Rom 03.05.2006.

- [16] *Granularity Adjustment for the Basel II - Model.*  
Stochastik Tage 2006, Frankfurt 14.03. – 17.03.2006.
- [17] *Granularity Adjustment for the Basel II - Model.*  
RTF Subgroup Meeting, Bank of International Settlements, Basel 02.03. – 03.03.2006.
- [18] *Granularity Adjustment for the Basel II - Model.*  
Credit Risk Workshop, Freising 28.02. – 01.03.2006.
- [19] *An Asymptotic expansion of the Black-Scholes model with Generalized Volatility.*  
Miniworkshop on Infinite Dimensional Stochastic Analysis,  
Bielefeld 09.08. – 10.08.2004.
- [20] *Finite dimensional realizations for interest rate models with jumps.*  
Stochastik Tage 2004, Karlsruhe 23.03. – 26.03.2004.
- [21] *Asymptotic expansion of the Black-Scholes model.*  
Arctic workshop on Stochastic Analysis and Mathematical Finance,  
Tromsø(Norwegen) 05.08. – 10.08.2003.

#### Invited Talks at Colloquiums

- [1] *A Multi-Period Bank Run Model for Liquidity Risk* Hochschule München, 13. – 14.02.2013.
- [2] *A Multi-Period Bank Run Model for Liquidity Risk.* Universität Paderborn, 22.05.2012.
- [3] *A Multi-Period Bank Run Model for Liquidity Risk.* Humboldt Universität zu Berlin, 01.12.2011.
- [4] *Weiterqualifikation nach der Promotion – Habilitation, Juniorprofessur oder Nachwuchsforschergruppenleiter.* Doktorandenforum der Deutschen Studienstiftung, Frankfurt a.M., 18.11.2011.
- [5] *A Multi-Period Bank Run Model for Liquidity Risk.* University of Ulm, 27.10.2011.
- [6] *Granularity Adjustment for Basel II.* FU Berlin, 20.12.2010.
- [7] *An Asymptotic Expansion for the Black-Scholes model with Generalized Volatility.*  
Invitation of Prof. Tubaro, Trento 15.02. – 19.02.2005.
- [8] *Hypoellipticity in Infinite Dimensions for the Jump-Diffusion Case.*  
Invitation of Prof. Teichmann, Wien 23.01. – 30.01.2005.
- [9] *Finite dimensional realizations for interest rate models with jumps.*  
Invitation of Prof. Björk, Stockholm 23.8. – 29.08.2003.
- [10] *Finite dimensional realizations for the extended forward interest rate model of Heath, Jarrow and Morton.*  
Invitation of Prof. Tubaro, Trento 02.03. – 05.03.2003.

**Research Stays and Advanced Training**

- [1] *Swissquote Conference on Liquidity and Systemic Risk.*  
École Polytechnique Fédérale de Lausanne, 08.11. – 09.11.2012.
- [2] *Swissquote Conference on Asset Management.*  
École Polytechnique Fédérale de Lausanne, 20.10. – 21.10.2011.
- [3] *Information, Liquidity and Trust in Incomplete Financial Markets.*  
Universität Freiburg, 11.10. – 13.10.2010.
- [4] *Thematic Program on Quantitative Finance: Foundations and Applications.*  
Workshop on Foundations of Mathematical Finance, Fields Institute of Toronto,  
Toronto 11.01. – 15.01.2010.
- [5] *A Conference on the Interaction of Market and Credit Risk.*  
organized by the Research Task Force of the Basel Committee on Banking Supervision  
and the Journal of Banking and Finance, hosted by the Deutsche Bundesbank,  
Berlin 06.12. – 07.12.2007.
- [6] *Concentration Risk in Credit Portfolios: A Workshop on Applied Banking Research.*  
organized by the Research Task Force of the Basel Committee on Banking Supervision  
and the Journal of Credit Risk, hosted by the Deutsche Bundesbank,  
Eltville a.R. 18.11. – 19.11. 2005.
- [7] *Stable Paretian Distributions and its Applications in Finance and Macroeconomics.*  
organized by Deutsche Bundesbank in honor of the 80<sup>th</sup> birthday of Prof. Mandelbrot,  
Eltville a.R. 10.11. – 12.11.2005.
- [8] *3rd Zürich Workshop on Quantitative Risk Management and Risk Day 2005.*  
Zürich 17.10. – 21.10.2005.
- [9] *Credit Modelling Course and Financial Modelling Workshop.*  
Ulm 19.09. – 22.09.2005.
- [10] *DMV Tagung 2004.*  
Heidelberg 16.09.2004.
- [11] *TMR Workshop.*  
Delft 01.06. – 04.06.2004.
- [12] *Berlin Workshop on Mathematical Finance for Young Researchers - Modelling, Measuring, and Managing Financial Risk.*  
Berlin 08.01. – 10.01.2004.
- [13] *Stochastic Modelling and Statistics in Finance, with Applications.*  
Oberwolfach 19.10. – 25.10.2003.
- [14] *Third Conference on Levy processes: Theory and Applications.*  
Paris 23.06. – 27.06.2003.