

# PUBLICATIONS

## MONOGRAPHS

[1] *Concentration Risk in Credit Portfolios.*

Springer Verlag, European Actuarial Academy (EAA) Lecture Notes, 2009.

## ARTICLES

[2] *Calculating capital charges for sector concentration risk.*

Journal of Credit Risk, forthcoming (with C. Kurtz and J. Sester).

[3] *Forecasting of multiple yield curves based on machine learning.*

Proceedings of the International Conference on Time Series and Forecasting 2018, Vol. 3, pp. 1483-1494, 2018 (with C. Gerhart and M. Weber).

[4] *Endogenous credit spreads and optimal debt financing structure in the presence of liquidity risk.*

European Financial Management 23(1), pp. 55-86, 2017 (with D. Oeltz and Y. Xiao).

[5] *Rollover risk and credit risk under time-varying margin.*

Quantitative Finance 17(3), pp. 455-469, 2017 (with X.-Z. He and Y. Xiao).

[6] *Collateralized Borrowing and Default Risk.*

In: Kallsen, J., Papapantoleon, A. (Eds.): Advanced Modelling in Mathematical Finance - In honour of Ernst Eberlein, Springer Proceedings in Mathematics & Statistics, Springer, 2016 (with Y. Xiao).

[7] *Funding liquidity, debt tenor structure, and creditor's belief: An exogenous dynamic debt run model.*

Mathematics and Financial Economics 9, pp. 271–302, 2015 (with G. Liang and W. Wei).

[8] *A multi-period bank run model for liquidity risk.*

Review of Finance 18, pp. 803–842, 2014 (with G. Liang and Y. Xiao).

[9] *Optimality of payoffs in Lévy models.*

International Journal of Theoretical and Applied Finance 17 (6), 1450041, 2014. DOI: 10.1142/S0219024914500411 (with E.A. von Hammerstein, L. Rüschendorf, V. Wolf).

[10] *Value-at-risk computations in stochastic volatility models using second order weak approximation schemes.*

International Journal of Theoretical and Applied Finance 17(1), 1450004, 2014 (with L. Matchie).

[11] *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, pp. 49–61, 2014 (with E.A. v. Hammerstein, L. Rüschendorf, V. Wolf).

[12] *Granularity adjustment for regulatory capital assessment.*

International Journal of Central Banking 9(3), pp. 33–71, 2013 (with M.B. Gordy).

[13] *Failure of the saddle-point method in the presence of double defaults.*

Journal of Risk 15(1), pp. 71–89, 2012.

[14] *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).

[15] *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).

[16] *Quantification of liquidity risk in a two-period model.*

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 10–11, 2011, Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten, Brussel, pp. 51–60, 2011 (with G. Liang and Y. Xiao).

[17] *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).

[18] *Granularity adjustment for Basel II.*

Discussion paper, Series "Banking and Financial Studies" 01/2007, Deutsche Bundesbank 2007 (with M.B. Gordy).

[19] *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).

[20] *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).

[21] *An asymptotic expansion for the Black-Scholes model with generalized volatility.*

Bulletin des Sciences Mathématiques 128 (8), pp. 661–685, 2004.

## DISSERTATION

[19] *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.