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ACADEMIC APPOINTMENTS

Assistant Professor, 2005–present
Department of Management Science and Engineering, Stanford University
Visiting Assistant Professor, 2003–2005
School of Operations Research and Industrial Engineering, Cornell University
Post-Doctoral Research Fellow, 2001–2003
School of Operations Research and Industrial Engineering, Cornell University
National Research Center, Humboldt University Berlin, Germany

EDUCATION

Dr. rer. pol. (Ph.D. Economics), 2001
Humboldt University Berlin, Germany
Diplom-Wirtschaftsingenieur (M.Sc. Electrical Engineering & Economics), 1998
Ilmenau University of Technology, Germany

REFEREED PUBLICATIONS

Measuring the Risk of Large Losses (with T. Schmidt and S. Weber)
Journal of Investment Management **6**, 2008

Estimating Tranche Spreads by Loss Process Simulation (with B. Kim)
Proceedings of the 2007 Winter Simulation Conference, IEEE Press, 967–975, 2007

Default and Information
Journal of Economic Dynamics and Control **30**(11), 2281–2303, 2006

Credit Contagion and Aggregate Losses (with S. Weber)
Journal of Economic Dynamics and Control **30**(5), 741–767, 2006

Cyclical Correlations, Credit Contagion, and Portfolio Losses (with S. Weber)
Journal of Banking and Finance **28**(12), 3009–3036, 2004

Forecasting Default in the Face of Uncertainty (with L. Goldberg)
Journal of Derivatives **12**(1), 11–25, 2004
Reprinted in *The Foundations of Credit Risk Analysis*, W. Semmler and L. Bernard (Eds.), Edward Elgar, 2007

Correlated Default with Incomplete Information
Journal of Banking and Finance **28**(7), 1521–1545, 2004

Sequential Defaults and Incomplete Information (with L. Goldberg)
Journal of Risk **7**(1), 1–26, 2004

In Search of a Modigliani-Miller Economy (with L. Goldberg)
Journal of Investment Management **2**(3), 1–6, 2004

A Simple Exponential Model for Dependent Defaults
Journal of Fixed Income **13**(3), 74–83, 2003

CONTRIBUTIONS TO BOOKS

- Portfolio Credit Risk: Top Down vs. Bottom Up Approaches
In *Frontiers in Quantitative Finance: Credit Risk and Volatility Modeling*, R. Cont (Ed.), Wiley, 2008
- Forecasting Extreme Financial Risk, (with L. Goldberg)
In *Risk Management: A Modern Perspective*, M. Ong (Ed.), 537–555, Elsevier, 2005
Reprinted in *ICFAI Journal of Financial Risk Management* **3**(4), 53-67, 2005
- Credit Risk Modeling, (with L. Goldberg and T. Backshall)
In *Handbook of Fixed Income Securities*, F. Fabozzi (Ed.), 779–798, Wiley, 2004
- Credit Risk Modeling and Valuation: An Introduction
In *Credit Risk: Models and Management, Vol. 2*, D. Shimko (Ed.), 487–525, Risk Books, 2004
Reprinted in *ICFAI Journal of Financial Risk Management* **2**(1), 1-40, 2004

SUBMITTED WORKING PAPERS

- Self-Exciting Corporate Defaults (with S. Azizpour), 2008
- Premia for Correlated Default Risk (with S. Azizpour), 2008
- The Correlation-Neutral Measure for Portfolio Credit, 2007
- Pricing Credit From the Top Down With Affine Point Processes (with E. Errais, L. Goldberg), 2007
- Time-Changed Birth Processes and Multi-Name Credit (with X. Ding and P. Tomecek), 2007
- A Top Down Approach to Multi-Name Credit (with L. Goldberg), 2007
- The Market Price of Credit Risk (with L. Goldberg), 2007
- Forecasting Liquidation (with X. Ding and E. Errais), 2006
- Dependent Events and Changes of Time (with P. Tomecek), 2005

PATENT

- “Method and Apparatus for an Incomplete Information Model of Credit Risk”
Co-inventor, pending. Foundation of *BarraCredit*, a commercial software suite of credit asset analytics tools for the financial industry, co-developed with MSCI Barra

SELECTED HONORS

- Graduate Teaching Award, Stanford University, 2007
- Gauss Prize, German Society for Actuarial and Financial Mathematics, 2003
- Doctoral and Post-Doctoral Fellowships, Deutsche Forschungsgemeinschaft, 1998-2003
- Deutsche Bundesbank Fellow, 2002

SELECTED RESEARCH GRANTS AND GIFTS

- Mizuho-DL Financial Technology, 2008 (\$100K, PI)
- J.P. Morgan Chase Academic Outreach Program, 2004-2008 (\$150K)
- Global Association of Risk Professionals, 2007 (\$12K)
- Stanford University, Presidential Research Grant, 2006-2007
- American Express, 2005-2006 (\$100K, Co-PI)
- Econa AG, 2006 (\$13K)
- Stanford University, David Morgenthaler II Faculty Scholar, 2005

PROFESSIONAL ACTIVITIES

Reviewer

Econometrica, Finance and Stochastics, Mathematical Finance, Management Science, Journal of Computational Finance, Journal of Economic Dynamics and Control, Journal of Derivatives, Financial Analysts Journal, Risk Magazine, Journal of Banking and Finance, Journal of Risk, Quantitative Finance, Journal of Futures Markets, Journal of Credit Risk, Swiss Society for Financial Market Research, Bank of England Working Papers, Journal of the European Economic Association, Physica A, Brazilian Review of Econometrics, Energy Economics, Applied Mathematical Finance, International Journal of Theoretical and Applied Finance, Asia-Pacific Financial Markets, Annals of Operations Research, Applied Mathematics and Computation, Nonlinear Analysis: Modeling and Control

Academic Press, Elsevier, Springer-Verlag

Organizer

2nd SIAM Conference on Financial Mathematics, Mini-Symposium on Credit Risk, 2008

American Mathematical Society 114th Annual Meeting, Special two day session on Financial Mathematics, January 2008 (with J.P. Fouque, R. Sircar, K. Solna)

INFORMS Annual Meeting, Session on Financial Engineering, November 2006

Stanford Conference on Quantitative Finance, August 2006 (with Tze Lai)

Faculty in Stanford's Financial Engineering Program in Hong Kong

Financial Mathematics Program at Stanford University

Member of Steering Committee

Chair of Curriculum Committee

Doctoral Students

Xiaowei Ding, Ph.D. in progress

Baeho Kim, Ph.D. in progress

Jack Kim, Ph.D. in progress

Shahriar Azizpour, Ph.D. 2008, Estimating Self-Exciting Models of Corporate Default
Quantitative Analyst, Credit Suisse

Eymen Errais, Ph.D. 2006, Pricing and Hedging Credit and Interest Rate Derivatives
Quantitative Analyst, Barclays Capital, Synthetic CDO Trading

Post-Doctoral Students

Hossein Kakavand

Member of Mathematical Finance Advisory Board, Rutgers University

Member of Technical Advisory Board, Julius Finance Corporation, New York

TEACHING EXPERIENCE

Investment Practice: Projects Course, Stanford University

Investment Science Honors, Stanford University

Credit Risk: Modeling and Management, Cornell and Stanford Universities

Financial Engineering with Stochastic Calculus, Cornell University

Applied Financial Engineering: Projects Course, Cornell University

NON-ACADEMIC WORK EXPERIENCE

Deutsche Bank, Credit Control Division, Paris (July–September 1997)
Deutsche Bank, Credit Risk Methodology & Research, Frankfurt (April–June 1997)
KPMG Management Consulting, IT Division, Berlin (August–September 1996)
HypoVereinsbank International, Corporate Credit Division, Luxembourg (March 1995)

SELECTED INVITED LECTURES

International Monetary Fund, Washington, 2008
Bachelier World Congress, London, 2008
Winter Simulation Conference, Miami, 2008
2nd SIAM Conference on Financial Mathematics, Plenary Lecture, New Brunswick, 2008
The Mathematics of Defaultable Securities, Plenary Lecture, Princeton, May 2008
Daiwa International Workshop on Financial Engineering, Kyoto, February 2008
American Mathematical Society, Annual Meeting, San Diego, January 2008
Winter Simulation Conference, Washington, December 2007
Credit Risk Summit, New York, November 2007
Stevanovich Center 2007 Conference on Credit Risk, Chicago, October 2007
Correlations and Copulas, Plenary Lecture, Melbourne, September 2007
14th INFORMS Applied Probability Conference, Eindhoven, July 2007
Fields Institute for Research in Mathematical Sciences, Toronto, June 2007
2007 Decision and Risk Analysis Conference, Dallas, May 2007
CreditMinds 2007, Geneva, March 2007
INFORMS Annual Meeting, Pittsburgh, November 2006
Conference on Lévy Models in Credit, Edinburgh, September 2006
German Mathematical Society Conference, Bonn, September 2006
Quant Congress USA, New York, July 2006
Numerical Methods for Finance, Plenary Lecture, Dublin, June 2006
ICBI Global Derivatives Trading & Risk Management, Paris, May 2006
J.P. Morgan, New York, March 2006
Stanford-Tsukuba Workshop on Financial Engineering, Stanford, March 2006
Global Association of Risk Professionals, San Francisco, January 2006
Quantitative Methods in Finance, Plenary Lecture, Sydney, December 2005
Risk Management and Derivatives School, New York, December 2005
Fields Institute for Research in Mathematical Sciences, Credit Risk Conference, London, Nov. 2005
INFORMS Annual Meeting, San Francisco, November 2005
J.P. Morgan Workshop on Credit Risk, New York, October 2005
Newton Institute, Developments in Quantitative Finance, Cambridge, February 2005
RISK Advanced Credit Risk Measurement & Modeling, Frankfurt, February 2005

Global Association of Risk Professionals, Masterclass Seminar, New York, January 2005
The Inaugural Fixed Income Conference, Prague, September 2004
Frontiers in Financial Mathematics, Summer School on Copulas, Bologna, September 2004
Bank of Italy, Ente Einaudi, Rome, September 2004
Daiwa International Workshop on Financial Engineering, Keynote Speaker, Tokyo, August 2004
Global Association of Risk Professionals, Credit Risk Summit, New York, June 2004
J.P. Morgan Chase, Global Derivatives Research Conference, West Point, May 2004
Frontiers in Finance, Petits Déjeuners de la Finance, Paris, December 2003
Center for Applied Probability at Columbia University, 10th Workshop on Derivative Securities & Risk Management, New York, November 2003
Erasmus Center for Financial Research, 12th Symposium, Rotterdam, May 2003
BNP Paribas, Credit Derivatives Research, London, May 2003
J.P. Morgan Chase, Derivatives Research, New York, June 2003
UC Berkeley, Mathematics Colloquium, Berkeley, March 2003
Courant Institute, Mathematical Finance Seminar, New York, February 2003
Credit Risk Conference, Paris, February 2003
Mathematical Sciences Research Institute, Event Risk Workshop, New York, November 2002
RISK Credit Summit, London, October, 2001
RISK MathWeek, London and New York, November and December 2000

SELECTED CONFERENCE PRESENTATIONS

World Congress on Computational Finance: The First Decade, London, March 2007
Bachelier Finance Society, Third World Congress, Chicago, July 2004
HEC Montreal, Second International Conference on Credit Risk, April 2004
9th International Conference on Computing in Economics and Finance, Seattle, July 2003
German Finance Association, Annual Meeting, Cologne, October 2002
European Investment Review, Annual Conference, London, September 2002
Econometric Society, European Meeting, Venice, August 2002
European Finance Association, Annual Meeting, Berlin, August 2002
Russian Academy of Sciences, Risk in Complex Systems, St. Petersburg, July 2002
9th International Conference on Computational Finance, London, May 2002
HEC Montreal, First International Conference on Credit Risk, Montreal, April 2002
European Finance Association, Annual Meeting, London, August 2000
Global Association of Risk Professionals, Research Conference, London, June 2000
7th International Conference on Computational Finance, London, May 2000