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EDUCATION

- Ph.D., Financial Economics, Yale University, 2005.
 - Title of Thesis: "Investing when knowledge is limited – Essays in Financial Economics"
- M.A., Financial Economics, Yale University, 2004.
- Docent, Applied Mathematics, Uppsala University, Sweden, 2000.
 - Title of Docent lecture: "Solving differential equations numerically with wavelets"
- Ph.D., Applied Mathematics, Uppsala University, Sweden, 1996.
 - Title of Thesis: "Wavelet solvers for hyperbolic PDEs"
- M.S., Business studies and Economics, Uppsala University, Sweden, 1996.
- M.S., Engineering Physics, Uppsala University, Sweden, 1992.
- B.A., History, Uppsala University, Sweden, 1992.

RESEARCH INTERESTS

Finance, asset pricing, heavy-tailed risks, networks in capital markets, insurance

EXPERIENCE

UC Berkeley, Haas School of Business, Berkeley, CA

- 2012-present, *Associate Professor of Finance* (with tenure).
- 2005-2012, *Assistant Professor of Finance*.

Swedish Institute of Financial Research (SIFR), *Hans Dahlborg Visiting Professor*, Stockholm, Sweden, 2015-2016.

NYU, Stern School of Business, *Visiting scholar*, September-December, 2014.

Koc University, *Visiting scholar*, Istanbul, Turkey, August 2014.

INSEAD, *Visiting scholar*, Fontainebleau, France, July 2014.

Oxford-Man Institute of Quantitative Finance, *Visiting scholar*, July-August, 2012.

Swedish Institute of Financial Research (SIFR), *Hans Dahlborg visiting professor*, Stockholm, Sweden, January-June, 2010.

Oxford University, *Visiting scholar*, June-July, 2010.

UCLA, Institute for Pure and Applied Mathematics (IPAM), *Visiting scholar*, September-November, 2007.

McKinsey & Company, *Management consultant*, Stockholm, Sweden, 1999-2002.

Yale University, *Postdoctoral research associate*, Department of Mathematics, 1997-1999.

Fast Mathematical Algorithms and Hardware Corporation, *Software consultant (part time)*, Hamden, CT, 1997-1999.

Uppsala University, *Lecturer*, Department of Scientific Computing, Uppsala, Sweden, 1996-1997.

COURSES TAUGHT

- MBA core finance (EWMBA203), 2006-2016.
- Stochastic calculus with asset pricing applications (MFE230Q), 2011-.
- C++ programming and numerical analysis for financial engineers (MFE program), 2010-2016.
- Mathematical foundations for financial engineers (MFE program), 2015-
- Executive education: Berkeley CEE 2006, 2007, 2008, 2012, 2014, NUS Singapore 2006-2010.

HONORS, AWARDS, GRANTS, FELLOWSHIPS, COMMITTEES, & VISITING POSITIONS

- UCLA, IPAM, Visiting Scholar, May 2015.
- Visiting Scholar, Federal Reserve Bank of San Francisco, 2016-2017.
- Peder Sather Center for Advanced Study, Grant, Co-PI, 2015-2016.
- Hans Dahlborg visiting scholarship, Swedish Institute of Financial Research (SIFR), 2015-2016.
- Wallenberg Academy Fellowship, 2013 (declined).
- Oxford-Man Institute, visiting researcher stipend, 2012
- Schwabacher Fellowship, Haas School of Business, 2010-2011.
- Research Affiliate, Swedish Institute of Financial Research (SIFR).
- Risk Management Institute, National University of Singapore, Research Grant, 2007- 2010.
- Cheit Award for Teaching Excellence in EWMBA program, Haas School of Business, 2007, 2009, 2011.
- Cheit Award for Teaching Excellence in MFE program, Haas School of Business, 2016.
- UC Berkeley Junior Faculty Research Grant, 2005, 2006, 2007.
- Fisher Center for Real Estate & Urban Economics, Haas School of Business, Research Grant, 2011, 2014.
- Hans Dahlborg visiting scholarship, Swedish Institute of Financial Research (SIFR), 2010.
- Oxford University, visiting researcher stipend, 2010.
- Institute for Pure & Applied Mathematics (IPAM), UCLA, visiting researcher stipend, 2007.
- Lehman Brothers Fellowship for Research Excellence in Finance, 2004, one of five finalists.
- Swedish Foundation for International Cooperation in Research and Higher Education (STINT), Research Fellowship, 1997-1999.
- ICOSAHOM travel grant, to International Conference in Spectral and High Order Methods, Herzliya, Israel 1998.
- Marquis Who's Who, 1998, 2001.
- Society for Industrial and Applied Mathematics' (SIAM) competition for best student paper in applied and computational mathematics, one of five finalists, 1996.
- Swedish Natural Research Council (NFR), Grant, 1992-1996.
- Stiegler's Fellowship for excellence in undergraduate studies, 1992.
- Haas EWMBA Program Committee, 2011-2013
- Haas MFE Steering Committee, 2014-
- Haas MFE Program Committee, Chair, 2013-2017
- Haas Finance Group Chair, 2017-

WORKING PAPERS

- "Social Transmission Bias and Investor Behavior," (with Bing Han and David Hirshleifer).
- "Making Money: Commercial Banks, Money Creation and the Payment System," (with Christine Parlour and Uday Rajan).
- "Welfare in Economies with Production and Heterogeneous Beliefs," (with Christian Heyerdahl-Larsen).
- "Trading, Profits, and Volatility in a Dynamic Information Network Model," **Revise and Resubmit, Review of Economic Studies.**

PUBLICATIONS Journals

- “Mortgage Loan Flow Networks and Financial Norms,” (with Richard Stanton and Nancy Wallace), *Review of Financial Studies*, forthcoming.
- “Equilibrium with Monoline and Multiline Insurers,” (with Rustam Ibragimov and Dwight Jaffee), *Review of Finance*, forthcoming.
- “Recovery with Unbounded Diffusion Processes,” *Review of Finance*, 2017, 21(4), 1403-1444.
- “Comment on: The intended and unintended consequences of financial-market regulations,” *Journal of Monetary Economics*, 2016, 81, 44-47.
- “Beauty is in the bid of the beholder: An empirical basis for style,” (with Will Goetzmann, Peter Jones, and Mauro Maggioni), *Research in Economics*, 2016, 70(3), 388-402.
- “BENCHOP – The Benchmarking Project in Options Pricing,” (with Lina von Sydow et al.), *International Journal of Computer Mathematics*, 2015, 92(12), 2361-2379.
- “Bounds for Path-Dependent Options,” (with Rustam Ibragimov and Donald Brown), *Annals of Finance*, 2015, 11(3), 433-451.
- “Markup cycles, dynamic misallocation and amplification” (with Marcus Opp and Christine Parlour), *Journal of Economic Theory*, 2014, 154, 126-161.
- “Optimal Insurance with Costly Internal Capital,” (with Dwight Jaffee), *Risk Management & Insurance Review*, 2014, 17(2), 137-161.
- “Investor Networks in the Stock Market,” (with Han Ozsoylev, Deniz Yavuz and Recep Bildik), *Review of Financial Studies*, 2014, 27(5), 1323-1366.
- “The Industrial Organization of the U.S. Residential Mortgage Market,” (with Richard Stanton and Nancy Wallace), *Annual Review of Financial Economics*, 2014, 6, 259-288.
- “Limited Capital Market Participation and Human Capital Risk,” (with Jonathan Berk), *Review of Asset Pricing Studies*, 2013, 3(1), 1-37.
- “Market Selection and Welfare in a Multi-Asset Economy,” (with Yurii Fedyk and Christian Heyerdahl-Larsen), *Review of Finance*, 2013, 17, 1179-1237.
- “Financial Flexibility, Bank Capital Flows and Asset Prices,” (with Christine Parlour and Richard Stanton), *Journal of Finance*, 2012, 67(5), 1685-1722.
- “Hedging Labor Income Risk,” (with Sebastien Betermier, Christine Parlour and Thomas Jansson), *Journal of Financial Economics*, 2012, 105(3), 622-639.
- “Asset Pricing in Large Information Networks,” (with Han Ozsoylev), *Journal of Economic Theory*, 2011, 146(6), 2252-2280.
- “Revisiting Asset Pricing Puzzles in an Exchange Economy” (with Christine Parlour and Richard Stanton), *Review of Financial Studies*, 2011, 24(3), 629-674.
- “Diversification Disasters,” (with Rustam Ibragimov and Dwight Jaffee), *Journal of Financial Economics*, 2011, 99(2), 333-348.
 - Reprinted in “Heavy-Tailed Distributions and Robustness in Economics and Finance,” Springer, 2015.
- “General Equilibrium Returns to Human and Investment Capital under Moral Hazard” (with Christine Parlour), *Review of Economic Studies*, 2011, 78(1), 394-428.
- “Value at Risk and Efficiency under Dependency and Heavy-Tailedness” (with Rustam Ibragimov), *Annals of Finance*, 2011, 7(3), 285-319.
- “Pricing and Capital Allocation for Multiline Insurance Firms,” (with Rustam Ibragimov and Dwight Jaffee), *Journal of Risk and Insurance*, 2010, 77(3), 551-578.
- “Optimal Bundling Strategies under Heavy Tailed Valuations” (with Rustam Ibragimov), *Management Science*, 2010, 56(11), 1963-1976.
 - Reprinted in “Heavy-Tailed Distributions and Robustness in Economics and Finance,” Springer, 2015.
- “Nondiversification Traps in Catastrophe Insurance Markets” (with Rustam Ibragimov and Dwight Jaffee), *Review of Financial Studies*, 2009, 22(3), 959-993.
 - Reprinted in “Heavy-Tailed Distributions and Robustness in Economics and Finance,” Springer, 2015.
- “Portfolio Diversification Under Local and Moderate Deviations From Power Laws” (with Rustam Ibragimov), *Insurance, Mathematics and Economics*, 2008, 42(2), 594-599.

- “The Limits of Diversification When Losses May be Large” (with Rustam Ibragimov), *Journal of Banking and Finance*, 2007, 31(8), 2551-2569.
 - Reprinted in “Heavy-Tailed Distributions and Robustness in Economics and Finance,” Springer, 2015.
- “Situational Awareness: Estimating the Size and Time of a Bioterror Attack” (with Edward Kaplan), *Emerging Infectious Diseases*, 2004, 10(7), 1202-1205.
- “Analysis of The Direct Fourier Method for Computer Tomography”, *IEEE Transactions on Medical Imaging*, 2000, 19(3), 211-222.
- “A General Adaptive Solver for Hyperbolic PDEs Based on Filter Bank Subdivisions”, *Applied Numerical Mathematics*, 2000, 33(1-4), 317-325.
- “Filter Bank Subdivisions of Bounded Domains”, *Applied Numerical Mathematics*, 2000, 32(3), 331-357.
- “Filter Bank Methods for Hyperbolic PDEs”, *SIAM Journal on Numerical Analysis*, 1999, 36(4), 1183-1233.
- “On the Approximation of Singular Source Terms in Differential Equations”, *Numerical Methods for Partial Differential Equations*, 1999, 15(4), 503-520.
- “Adaptive Wavelet Methods for Hyperbolic PDE” (with Mats Holmström), *Journal of Scientific Computing*, 1998, 13(1), 19-49.
- “Spectral Analysis of the Differential Operator in Wavelet Bases”, *Applied and Computational Harmonic Analysis*, 1995, 2(4), 382-391.

Books & Proceedings

- “Heavy-Tailed Distributions and Robustness in Economics and Finance,” (with Marat Ibragimov and Rustam Ibragimov), Lecture Notes in Statistics, Springer, 2015.
- Situational Awareness in a bioterror attack via probability modeling, in Risk Assessment and Risk Communication Strategies in Bioterrorism Preparedness, (Green et. al. Eds.), Springer 2007.
- Filter Banks, L-cycles and Hyperbolic PDE in Hackbusch W. and Wittum G. (Ed. by) Numerical Treatment of Multi-Scale Problems, Vieweg-Verlag (1999).

Research reports

- “The Pseudopolar FFT and its Applications” (with Amir Averbuch, Ronald Coifman, David Donoho, Moshe Israeli), Research Report DCS/RR-1178, Yale University, Dept. of Computer Science, New Haven CT, 1999.
- “Fast Slant Stack: A Notion of Radon Transform for Data in a Cartesian Grid which is Rapidly Computable, Algebraically Exact, Geometrically Faithful and Invertible” (with Amir Averbuch, Ronald Coifman, David Donoho, and Moshe Israeli), Stanford University, Department of Statistics, 2001.
- “Solving the Compressible Euler and Navier-Stokes Equations with the Filter Bank Method”. Research Report DCS/RR-1184, Yale University, Dept. of Computer Science, New Haven CT, 1999.
- “Filter Bank Preconditioners for Finite Difference Discretizations of PDEs”, Technical Report 198, Uppsala University, Department of Scientific Computing, 1997.
- “Orthonormal, Compactly Supported Wavelets for Solving Hyperbolic PDEs”, Technical Report 170, Uppsala University, Department of Scientific Computing, 1995.

AFFILIATIONS

American Finance Association (AFA), American Economic Association (AEA), Society for Industrial and Applied Mathematics (SIAM), American Mathematical Society (AMS), Econometric Society, European Finance Association (EFA).

PRESENTATIONS

- London Business School, University of North Carolina at Chapel Hill, NYU Stern, Columbia University, UCLA Anderson, UC Berkeley, Yale School of Management, University of Notre Dame, Georgetown University, Tuck School of Business, Duke University, Lehman Brothers, Ziff Brothers Investments, Uppsala University, 2006, 2008, University of Oxford, INSEAD, Stockholm School of Economics 2006, 2010, Arizona State University, National University of Singapore 2007, 2008, 2009, WFA 2007, 2008, 2010, 2011, NBER 2008 (April and July Asset Pricing meetings), EWFS 2008, European Summer Symposium in Financial Markets in Gerzensee 2008, 2009, IPAM 2007, Oxford

Summer Finance Symposium 2008, Norwegian School of Economics and Business Administration 2008, Wharton 2009 (micro finance, and risk management), UBC 2009, University of Minnesota 2009, North American Summer Meeting of Econometric Society 2009, ENUMATH 2009, EFA 2009, 2011, UC Merced 2009, Goethe University 2010, Toulouse 2010, North American Winter Meeting of Econometric Society 2010, Stanford SITE conference 2010, Yale 2010, HEC Lausanne 2011, UT Austin 2011, Stanford-Berkeley seminar 2007, 2011, SAET 2011, World Finance Conference 2011, 2013, Brown University 2011, University of Miami 2011, HKUST 2011, University of Illinois 2011, Goethe University 2011, Aarhus 2011, AFA 2012, Jackson Hole conference 2012, University of Luxembourg 2012, MIT 2012, Oxford-Man Institute 2012, Amsterdam 2012, Maastricht 2012, USC 2012, Rochester 2012, NYC-Poly 2013, Cal Poly 2013, EPGE/FGV 2013, Insper 2013, Universidad Torcuato di Tella 2013, SIFR 2013, 5th FinanceUC conference, Santiago, Chile, SIFR Workshop on Pension and Insurance 2103, AFA 2014, Koc University 2014, Conference on Numerical and Mathematical Modeling in Finance, Mittag Leffler Institute, 2014, Workshop on Production Based Asset Pricing, Oslo, 2014, Koc University, NYU Courant Institute, Morgan Stanley, 2014, NYU Stern, Yale School of Management, Brigham Young, 2015, D-TEA 2015, SED 2015, WFA 2015, UCLA IPAM, Stanford Center for Financial and Risk Analytics, Ludwig-Maximilians University, Risk and Insurance Center, UW Madison, Federal Reserve Bank of San Francisco, NHH Bergen, University of Alberta, Baruch College. Berkeley-Columbia Meeting in Engineering and Statistics, 5th ITAM Finance Conference, Mexico City, EFA 2016, IIF Insurance Colloquium, 2016, Basel, Switzerland, University of Lausanne 2016, 2017, CFE 2016, Seville, Spain, London Business School, 2017, London School of Economics, 2017, BI Norwegian Business School, 2017, FIRS 2017 Hong Kong, Imperial College London 2017 (scheduled), University of Calgary (scheduled).

SERVICE TO THE PROFESSION

- *Referee: Review of Financial Studies, Journal of Political Economy, Journal of Finance, Journal of Financial Economics, Review of Economic Studies, American Economic Review, Econometrica, Management Science, Quantitative Finance, Journal of Economic Theory, Journal of Banking and Finance, Journal of Financial and Quantitative Analysis, Journal of Economic Dynamics and Control, Journal of Multivariate Analysis, Journal of Financial Markets, Journal of Risk and Insurance, Computers and Mathematics with Applications, Operations Research, Journal of the European Economic Association, Mathematical Finance*
- *Program committees: WFA 2008- 2017, EFA 2011-2017.*
- *Associate Editor, Financial Management, 2017-*
- *Session chairs: AFA 2016.*
- *Discussant: AFA, WFA, EFA, EWFS, European Summer Symposium in Financial Markets in Gerzensee, World Finance Conference, Berkeley-Stanford seminar, Carnegie-Rochester-NYU conference, Red rock conference.*
- *Conferences: Co-organizer SIFR conference on Insurance Economics, Stockholm, August 2015.*

SERVICE TO THE PUBLIC

- *Congressional Oversight Panel: Assisted Panel in assessing the Federal Reserve Board's Supervisory Capital Assessment Program (COP Report, June 9, 2009), together with Professor Eric Talley. Report: "The Supervisory Capital Assessment Program: An Appraisal" (<http://www.cop.senate.gov/documents/cop-0606090-report.pdf>)*
- *Swedish Financial Markets Committee: Analyzed the effects of new bank and insurance regulations on the Swedish banking system, together with Professor Dwight Jaffee. Report: "The impact of Basel III and Solvency 2 on Swedish Banks and Insurers – An Equilibrium Analysis" (<http://www.sou.gov.se/fmk/rapporter.htm>)*

MEDIA

- Fox Business, June 8, 2009: "Banks May Need New Stress Tests"
- CNBC, June 9, 2009: "TARP Panel Report Gives Lukewarm Review to Stress Tests"
- ABC News, June 9, 2009: "10 Banks Can Repay TARP Billions"
- MSNBC, June 9, 2009: "Grading the TARP Report"
- Wall Street Journal, July 11, 2011: "Basel III"