Guillaume Weisang

Contact Information

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Education

PhD (Business Analytics) — *August 2006 – May 2011*
McCallum Graduate School of Business, Bentley University — Waltham, MA

MS (Financial Engineering and Modeling) — *2004 – 2005*
Toulouse Business School (ESCT), the National Engineering School in Aeronautic (Supareo) and the National Institute in Advanced Sciences of Toulouse (INSA) — Toulouse, France

MS (Computer Science and Applied Mathematics) — *2002 – 2005*
National Polytechnic Institute of Engineering in Electro-technology, Electronics, Computer Science, Hydraulics and Telecommunications (ENSEEIHT) — Toulouse, France

Employment

Assistant Professor of Finance — *September 2011 – Present*
Graduate School of Management, Clark University — Worcester, MA

Instructor — *January 2011 – May 2011*
Dept. of Finance, Bentley University — Waltham, MA

Instructor — *January 2009 – May 2011*
Dept. of Mathematical Sciences, Bentley University — Waltham, MA

Quantitative Strategist Intern — *January 2006 - June 2006*
Société Générale Asset Management Alternative Investment — Paris, La Défense
Modeling of Quantitative strategies for the Structured Products, Strategies and Investment Products department

Quantitative Strategist Intern — *May 2005 - November 2005*
Société Générale Asset Management Alternative Investment — Paris, La Défense
Econometric modeling in the Structured Products, Research Department

Research Assistant — *January 2005 – May 2005*
Research Laboratory in Finance, Toulouse Business School — Toulouse, France
Numerical computations of default probabilities in Gabillon's model on corporate debt.

Software Development Intern — *June 2004 – September 2004*
AIG, Claims Department — Paris, La Défense
Development Architect and Implementation Engineer of a VBA and SQL software application for work flow management

Research

Refereed Articles

◇ "Risk Parity Portfolios with Risk Factors," T. Roncalli, G. Weisang [*],
Quantitative Finance (Forthcoming).

◇ "Tracking Problems, Hedge Fund Replication and Alternative Beta," T. Roncalli, G. Weisang[*],
Journal of Financial Transformation, Volume 31, pp.19–29, 2011.

◇ "Vagaries of the Euro : An Introduction to ARIMA Modeling," G. Weisang [†], Y. Awazu
Case Studies in Business, Industry and Government Statistics, Volume 2, Issue 1, pp.45–55, 2008.

Edited Chapters

◇ "Factor Selection In Dynamic Hedge Fund Replication Models : A Bayesian Approach," G. Weisang,
Advances in Econometrics, Volume 34 *(Forthcoming)*, special issue on Bayesian Model Comparison, 2014.
(This paper was refereed and went through a competitive submission process)

◇ "Risk Management Lessons from Madoff fraud," P. Clauss, T. Roncalli, G. Weisang[*]
International Finance Review, Volume 10, Chapter 17, Eds. J. J. Choi and M. Papaioannou, pp.505–543, 2009.

Working Papers

◇ "Asset Management and Systemic Risk," T. Roncalli, G. Weisang, May 2015
Available at http://papers.ssrn.com/abstract=2610174

◇ "An Examination of Determinants of Expatriate Career Intentions," A. Joardar, G. Weisang, January 2015.
Accepted for conference presentation at AIB 2015.

◇ "A Robust Approach to Misspecifications and Non Linearities for Dynamic Portfolio Replication," G. Weisang, June 2012. *(Major revision under way).*

◇ "Essays on Hedge Fund Replication : Methodological Assessment and Development of the Factor Approach, Model Selection, Non Linear Modeling and Policy Perspectives," G. Weisang, March 2011
PhD dissertation (defended on March 29, 2011).

◇ "Exploring non linearities in Hedge Funds : An application of Particle Filters to Hedge Fund Replication," T. Roncalli, G. Weisang, September 2009.

◇ "A GAUSS Library for particle filters," T. Roncalli, G. Weisang, January 2009.
Procedures Library for particle filters for the GAUSS language. Available at www.guillaume-weisang.com.

◇ "ACD models : Models for data irregularly spaced in time. A Gentle Introduction," G. Weisang, April 2008. Available at www.guillaume-weisang.com.
Procedures Library in ***R****.*

◇ *"Macroeconometric Modeling of Interest Rates," G. Weisang, December 2005. Master's Professional Thesis.*

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[*] *Authors listed alphabetically*
[†] *Lead investigator*

- ◇ *"acd" and "aacd", **R** libraries for the estimation and simulation of (Augmented) Autoregressive Conditional Regression models.*

Research in Progress

- ◇ "Dynamic Portfolio Replication and Risk Change-Point Detection."
  - Major revision of previous work on applications of H_∞ filtering to dynamic replication of portfolios. The angle favored here is detection of change in risk structure of portfolio. Potential contribution to risk management literature and time series change-point literature.
  - Working on theoretical section, extending the justification of the ζ statistic with work on its frequency domain interpretation.
- ◇ "Bayesian Liquidity Beta in US Stocks" with S. Feng.
  - Database of time-varying Betas for major U.S. equities (about 900) with respect to 5 major risk factors over last 10 years has been calculated. Still need to clean-up and check integrity.
  - Extending computer code to other form of linear market models.
- ◇ "Revisiting Risk-Shifting by Mutual Funds : Calendar Effects and Competition" with S. Parida.
  - Working on Methodology Section.
- ◇ "Investigating Factor Selection for Hedge Fund Replication : LASSO Kalman Smoother and the Posterior Cramer-Rao Bound."
  - Literature review on Bayesian Lasso completed. Working on link between Lasso Kalman Smoother, Posterior Cramer-Rao Bound and Bayesian Lasso approach.
- ◇ "Corporate Environmental and Social Governance and Financial Performance : A Bayesian exploratory analysis" with Z. Wang.
  - Data set downloaded and updated. Working on a Time-varying Fixed Effect Model and a Hierarchical Markov Model for the effect of Corporate Environmental and Social Governance on Financial Performance.

Conference Presentations / Lectures

Invited Talks

- ◇ "Factor selection in hedge fund replication dynamic models : a Bayesian approach," *Invited Talk, Conference on Bayesian Model Comparison, February 21-22, 2014, UC Irvine, Irvine, CA.*

- ◇ "A Survey of Filtering Techniques Applied to Hedge Fund Replication," *Invited Talk, Computational and Financial Econometrics 2012, December 1-3, 2012, Oviedo, Spain.*

- ◇ "Hedge Fund Replication and Tracking Problems : a "new" approach to Alternative Beta" *Fidelity Investment Strategic Research Group, May 20, 2010, Boston, MA.*

- ◇ "Risk Management Lessons from Madoff Fraud," *Invited Talk, Battles Lecture, May 29, 2009, NES/MAA meetings at Fairfield University, Fairfield, CT.*

Presentations at Conferences

- ◇ "An Examination of Determinants of Expatriate Career Intentions," presented by A. Joardar, *AIB 2015 Bengaluru Conference, June* $27-30$*, 2015, Indian Institute of Management, Bangalore (IIMB), India.*

- ◇ "Risk Parity Portfolios with Risk Factors," *AFFI 2013, May* $29-31$*, 2013, EM Lyon, Lyon, France.*

- ◇ "Factor selection in hedge fund replication dynamic models : an application of forward filtering-backward sampling algorithm and reversible-jump MCMC," *Invited talk, ICSA Applied Statistical Symposium, June 24, 2012, Boston, MA.*

- ◇ "Hedge Fund Replication Using H_∞ Filters : Report on a work in Progress" *New England Statistics Symposium, April 17, 2010, Harvard University, Cambrige, MA.*

- ◇ "Exploring non linearities in Hedge Funds : An Application of Particle Filters to Hedge Fund Replication," *Poster, January 28-29, 2010,* 2^{nd} *Annual Conference on Hedge Funds, Paris, France.*

- ◇ "Tracking Problems, Hedge Fund Replication and Alternative Beta," *Contributed Paper, August 1-6, 2009, Joint Statistical Meetings, Washington D.C.*

- ◇ "Risk Management Lessons from Madoff Fraud," *Contributed Paper, April 25, 2009, New England Statistics Symposium, University of Connecticut, Storrs, CT.*

- ◇ "An Open Source Library for the Estimation and Evaluation of ACD Models," *Contributed Paper, August 3-7, 2008, Joint Statistical Meetings, Denver, CO.*

- ◇ "ACD models : Models for data irregularly spaced in time." *Contributed Paper, April 19, 2008, New England Statistics Symposium, Suffolk University, Boston, MA.*

Other Presentations

- ◇ "Robust Filtering, Portfolio Replication and Leverage Effect," *GSOM Research Seminar, February 18, 2015, Clark University, Worcester, MA.*

- ◇ "Factor Selection in Dynamic Hedge Fund Replication Models : A Bayesian Approach," *WPI Statistics Seminar, September 29, 2014, Worcester Polytechnic Institute, Worcester, MA.*

- ◇ "Beyond Risk Parity : Using Non-Gaussian Risk Measures and Risk Factors," *Boston QWAFAFEW Discussion, January 15, 2013, Boston, MA.*

- ◇ "Tracking Problems, Hedge Fund Replication and Alternative Beta," *February 12, 2009, Mathematical Sciences Department Seminar, Bentley University, Waltham, MA.*

- ◇ "Hedge Fund Replication and Alternative Beta : a review and a tentative new framework." *November 18, 2008, Finance Department Brown Bag Seminar, IE Business School, Madrid, Spain.*

Teaching

❑ Graduate Courses

♦ Clark University

Financial Econometrics (FIN 5309)
Computational Finance (FIN 5216)
Financial Indexing (FIN 5312)

❑ Undergraduate Courses

♦ Bentley University, Waltham MA

Financial Markets and Investments (FI 320)
Business Statistics (GB 210)
Applied Business Statistics (ST 242)

Service

Clark University

Research Committee, GSOM, Clark University — *2013– Dec. 2014*

GSOM Research Seminars, GSOM, Clark University — *2013– Dec. 2014*
Co-chair

Finance Tenure-Track Search Committee, GSOM, Clark University — *2013–2014*
Diversity Advocate

Faculty Compensation Committee, Clark University — *2012–2013*

MSF/Finance Faculty Committee, GSOM, Clark University — *2011–Present*

Professional Service

Thesis/Dissertation Committees

University of Stellenbosch, Department of Mathematical Sciences — December 2014
External examiner, MSc Thesis in Mathematics by Lesiba Charles Galane, "The Risk Parity Approach to Asset Allocation."

Manuscript Reviewer

Case Studies in Business, Industry and Government Statistics — *2008 – Present*
Journal of Strategic Information Systems — *2010 – Present*
Intl. Journal of Statistics and Management Systems — *November 2012 – Present*
Optimization and Engineering — *June 2013 – Present*
Journal of Alternative Investments — *August 2013 – Present*
IEEE Transactions on Signal Processing — *February 2015 – Present*
47^{th} Hawaii International Conference on System Sciences — *August 2013*

Editorial Services

Editorial Assistant — *2007–2011*
Case Studies in Business, Industry and Government Statistics

Professional Associations Memberships

- American Finance Association (AFA),
- Financial Management Association (FMA),
- American Statistical Association (ASA),
- Institute of Mathematical Statistics (IMS),
- International Society of Bayesian Analysis (ISBA),

Grants & Proposals

Grant Proposal — *March 2012*
IdR QuantValley/FdR "Quantitative Management Initiative" in collaboration with Pr. Sitikantha Parida, GSOM, Clark University, MA.
Amount requested : 9100 €

Grant Proposal — *November 2014*
ETF Research Academy – Research Project Application in collaboration with Pr. S. Feng, GSOM, Clark University, MA.
Amount Requested : 5000 €

Honors & Awards

Bentley University Ph.D. Scholarship — *August 2006 – August 2011*

ASA Honorable Mention — *August 2010*
Joint Statistical Meetings, Vancouver, BC

Visiting PhD student — *August 2008 – December 2008*
IE Business School, Madrid, Spain

Best PhD student in Business Award — *2007 – 2008*
Bentley University, Waltham, MA

Language Skills

French	Native Speaker
English	Fluent
German	High School level
Spanish	Elementary level

Computer Skills

Operating Systems	UNIX, Linux, Mac OS X, Windows *98/2000/XP/Vista/7)*
Software	Microsoft Office, LaTeX, Eclipse
Programming	Gauss, **R**, MatLab, C/C++, Java, UML, FORTRAN, SQL, VB, VBA