

1288 Kapiolani Blvd #3404  
Honolulu, Hawaii 96814  
USA

E-mail: [meissner@hawaii.edu](mailto:meissner@hawaii.edu)  
Phone: USA (808) 779 3660

## Gunter Meissner

### Work experience:

- Currently President of Derivatives Software, [www.dersoft.com](http://www.dersoft.com)  
*Main Product: TRADE SMART, which derives Pricing models for Futures, Swaps and Options as wells as Risk Management models for various types of risk such as Weather Risk, Catastrophe risk, correlated Credit risk (including Basel III's CVaR, CVA and Double Default approaches)*
- CEO and Founder of Cassandra Capital Management  
[www.cassandraccm.com](http://www.cassandraccm.com) (site under construction)
- Adjunct Professor of Mathematical Finance at Columbia University and NYU  
*Holding lectures in 'Financial Correlations – Modeling, Trading, Risk management and AI' and 'Interest Rate and Credit Models'*
- University of Hawaii, Economics Department *Holding lectures in Mathematical Economics, Econometrics, Financial Markets and Institutions, Intro to Microeconomics, Intermediate Microeconomics, Global Crisis and Recovery, and Internship class*
- 2008-2013 Director of the Master in Financial Engineering Program at the University of Hawaii. *Created and managed the program. Taught classes in 'Financial Derivatives', 'Credit and Interest Rate Risk Models' and 'Environmental Finance and Weather Derivatives'.*
- 1996-2007 Professor of Finance, Hawaii Pacific University  
*Held lectures in Corporate Finance, Financial Management, Risk Management, Introduction to Financial Derivatives, and Advanced Derivatives*
- 07/2005 Visiting Professor at McMaster University, Hamilton, Canada, *Held lecture on Futures and Options*

- 08/2004 Visiting Professor at Thammasat University Thailand  
*Held lecture on financial engineering*
- 07-08/2003 Honorary Scholar at University of Technology, Sydney  
*Conducted research on credit risk and credit derivatives*
- 06-07/2002 Visiting Professor of Finance, ABAC University and Thammasat University, Thailand  
*Held lectures on financial engineering*
- 05-06/2001 Visiting Professor of Finance, Ecole Nationale des Ponts et Chaussées, Tokyo  
*Held lecture on Advanced Derivatives*
- 1994 - 1996 Head of Options at Deutsche Bank Tokyo  
*Responsibilities included supervising the trading, the risk-management, and the implementation of software systems*
- 1993 - 1994 Head of Product Development at Deutsche Bank Frankfurt Swap Group  
*Responsible for generating mathematical algorithms to price and risk-manage new derivative products, which at the time were Lookback Options, Multi-asset Options, Quanto Options, Average Options, Index Amortizing Swaps, and Bermuda Swaptions*
- 1990 - 1993 Interest Rate Derivatives Trader at Deutsche Bank Frankfurt  
*Trading and risk-managing Interest Rate Derivatives such as Caps, Floors, Swaptions, and Bond-Options*
- Interest Rate Derivatives Trader at Deutsche Bank New York during a three-month exchange program  
*Trading and risk-managing Interest Rate Derivatives such as Caps, Floors, Swaptions, and Bond-Options*
- 1989 - 1990 Instructor of Business at the Politec Kiel  
*Held lectures on organizational management*
- 1986 - 1990 Instructor of Mathematics and Statistics at the Economic Academy Kiel  
*Held lectures on Linear Algebra, Statistics, Calculus, Operations Research, and Time Series Analysis*

<b>Education:</b>	1989	Ph.D. from the Christian Albrechts-University Kiel <i>Dissertation topic: The Harrod-Instability Theorem</i>
	1985/1986	Ph.D. Studies at the University of Hawaii
	1984	Diploma in Economics
	1980-1984	Studies of Economics at the Christian Albrechts-University Kiel

## Publications

### Books:

“Economic and Financial Forecasting – 10 Methods; with Excel spreadsheets, Python code and 10 Videos”, *Derivatives Software*, September 2020

“Correlation Risk Modeling and Management – An Applied Guide including the Basel III Correlation Framework. With Interactive Correlation Models in VBA/Excel.” *John Wiley*; March 2014 [Four chapters of the book are on the official study guide for the FRM (Financial Risk Manager) exam of GARP (Global Association of Risk Professionals)]; Second edition published 2019; Several chapters are on the FRM study guide.

“The Definitive Guide to CDOs – Market, Application, Valuation, and Hedging”, Editor and Co-author, *RISK books*; September 2008

"Credit Derivatives – Application, Pricing, and Risk Management" *John Wiley*, January 2005 [Book is an official study guide for the FRM (Financial Risk Manager) exam of GARP (Global Association of Risk Professionals)]

"Outperform the Dow: Using Futures, Options, and Portfolio Strategies to Beat the Market", with Randy Folsom, *John Wiley*, September 2000; also published in Chinese and German

"Trading Financial Derivatives – Futures, Swaps and Options in Theory and Application", *Simon and Schuster*, January 1998

### Papers:

“A Unified Stochastic Volatility – Stochastic Correlation Model”, with Xiang Lu and Hong Sherwin, *Journal of Mathematical Finance*, Fall 2020

“A Correlation Based Portfolio Performance Measure”, *Journal of Investing*, Fall 2019

"Does International Stock-Index Arbitrage exist?" with Olivia Ng and Pedro Villarreal, *Journal of Investment Strategies*, March 2019

"Artificial Intelligence – Consciousness and Conscience", *AI and Society*, February 2019

"Portfolio Management – Why Correlation Matters" *Canadian Pension Fund*, June 2018

"Why so Negative on Negative Volatilities?" with Mark Burgin, *Journal of Statistics and Applied Mathematics*, October 2017

"1+1=3 Synergy Arithmetic in Economics", with Mark Burgin, *Applied Mathematics*, January 2017

"Correlation Trading Strategies – Opportunities and Limitations" *Journal of Trading*, Fall 2016

"Extended Correlations" with Mark Burgin, *Journal of Mathematical Finance*, February 2016

"It's all about Correlation" *Wilmott Journal*, October 2015

"A Comparative Analysis of Correlation Models in Finance", with Claudio Albanese and David Li, *Journal of Derivatives*, January 2014

"The Valuation of Credit Default Swaps (CDSs) including Investor - Counterparty - Reference Entity Default Correlation" with Dallyn Mesarch and Alexey Olkov, *Journal of Risk*, December 2013

"The Impact of different Correlation Approaches on Valuing CDSs with Counterparty Risk" with Seth Rooder and Kristofor Fan, *Quantitative Finance*, March 2013

"Larger than One Probabilities in Financial Modeling" with Mark Burgin, *Review of Economics and Finance*, 2012, No.4

"Negative Probabilities in Financial Modeling" with Mark Burgin, *Wilmott Journal*, March 2012, Issue 58

"Can we use the Black-Scholes-Merton Model to value Temperature Options?" with Jim Burke, *International Journal of Financial Markets and Derivatives*, V4, N2, December 2011

“CVA (Credit Value Adjustment) modeling and management – Can it prevent the next global financial crisis?” *Conference Proceeding of the Asia Derivatives Conference, Beijing September 2011*

“Negative Probabilities in Modeling Random Phenomena”, with Mark Burgin, *Integration: Mathematical Theory and Application*, Vol 2 Nr.3, 2012, earlier version presented at *Mathematics Workshop UCLA, October 2010*

“Modeling and Managing Liquidity Risk – Lessons from the 2008 Liquidity Crisis”, *Conference Proceeding of the 8<sup>th</sup> Annual International Conference on Mathematics, Statistics, and Related Fields*, Honolulu, January 2009

“Hedging Liquidity Risk” with Ranjan Bhaduri, *Journal of Alternative Investments*, January 2008

“Valuing Credit Default Swaps with Counterparty Risk – A combined Copula-LMM approach” with Mike Hamp and Janne Kettunen *Conference Proceedings of FEA (Financial Engineering and Applications)*, UC Berkeley, September 2007

“N(-d<sub>2</sub>) and N(d<sub>2</sub>) demystified” *Risk Review*, August 2007

“Valuing Default Swaps on Correlated LMM processes,” with Janne Kettunen, *Journal of Alternative Investments*, Summer 2006; earlier version published in *Conference Proceedings of IASTED*, MIT, Cambridge

“Consecutive Covered Call writing – An above market strategy?” with Sandra Wu, “*Technical Analysis of Stocks and Commodities*” May 2006

“Are Defaults Correlated? – An Empirical Study”, with Li, Li, *Investment Management and Financial Innovations*, January 2006

“A Model for a Fair Exchange Rate,” with Morgan Aries and Gianfranco Giromini, *Review of Pacific Basin Financial Markets and Policies (RPBFMP)*, March 2005

“Trading Trends and Correlations”, with Sarp Cercioglu, *Futures Magazine*, January 2003

"Recent Advances in Credit Risk Management - A Comparison of five Models", with Kristian Nielsen, *Derivatives Use, Trading and Regulation*, August 2002; also published as chapter 12 in *Credit Derivatives and Synthetic Securitisation - A guide to commoditisation of credit risk*, Vinot Kothari, editor

"Capturing the Volatility Smile of Options on High-tech Stocks – A combined GARCH-Neural Network Approach", with Noriko Kawano, *Journal of Economics and Finance*, Fall 2001; also published in German in "*Handbuch des Portfolio Managements*" April 2002

"Understanding Options," *Honolulu Star Bulletin*, March 2002

"The Relative Strength Index Revisited", *Futures Magazine*, August 2001

"A Refined MACD Indicator – Evidence against the Random Walk Hypothesis?" with Kai Nolte and Albin Alex, published in *ABAC Journal*, August 2001, reprinted in *Futures Magazine*, July 2002; also published in German in *Handbuch des Risk Managements*, August 2003

"Volatility Arbitrage in Fixed Income Markets", *Derivatives Quarterly*, April 1999; also published in German in *Modernes Bondmanagement*, January 2001

"Caps, Floors, Collars", *Modernes Bondmanagement*, May 1994

In Submission: "The Pearson Correlation Model - Work of the Devil?", forthcoming in *Wilmott Journal*

In Submission: "A Total-Risk based Portfolio Performance Measure", with Ranjan Bhaduri, Lenny Linsky, and Eleanor Yuan

Work in progress: "Joint Modeling of Liquidity risk and Market Risk – A New Approach" with Robert Engle and Sophie Cheng

Work in progress: "A Country-specific COVID-10 model" with Hong Sherwin

### **Presentations:**

"Portfolio Risk – Beyond Volatility" Keynote speech at CFA Conference, New York 2019

“A Performance Based Portfolio Performance Measure”, Risk Summit, New York, June 2019

“New Approaches to Performance Measuring” Global Association of Risk Professionals, New York, March 2018

“Credit and Correlation Risk Modeling and Management” Workshop for RiskMathics, Mexico City June 2017

“The Basel III Correlation Approach – Too Simplistic?” Annual GARP conference, New York, February 2016

“Latest Developments in Correlation Trading” Workshop at the Global Derivatives Conference, Chicago, October 2014

“Financial Correlations – Models, Trading, and Risk-Management”, 2-day workshop for RiskMathics, Mexico City, June 2013

“Should we model financial Correlations with a stochastic Process?” Global Derivatives Conference, Chicago November 2013

“On the Valuation of CAT (Catastrophe) Bonds” Pacific Asian Congress on Marine Science and Technology, Hawaii, December 2012

“CVA (credit value adjustment) – Can it prevent the next global financial crisis?” Key note address at the Asia Derivatives Conference in Beijing, September 2011

“Algorithmic and High Frequency Trading” Geek day, Leeward Community College, October 2010

“Negative Probabilities in Financial Modeling” Mathematics Workshop UCLA, October 2010

“A combined Market risk - Liquidity risk model” RISK Middle East Conference, Bahrain, November 2009

“Modeling and Managing Liquidity Risk – Lessons from the 2008 Liquidity Crisis”, 8<sup>th</sup> Annual International Conference on Statistics, Mathematics and Related Fields, Honolulu, January 2009

“Joining Market Risk and Liquidity Risk – A New Approach”, Risk USA conference, New York, September 2008

“CDOs after the crisis – Valuation and Hedging methodologies

reviewed” one-day seminar for RISK, New York, September 2008

“Pricing Credit Default Swaps with Counterparty Risk – A combined Copula-LMM approach” Financial Engineering and Applications conference, UC Berkeley, September 2007

“CDOs gone wrong: The 2007/2008 Financial Crisis – Who to blame, Lessons to learn” Seminar for CFA Toronto, June 2008

“CDOs – Application, Pricing, and Hedging”. One-day seminar at the annual GARP conference, New York, February 2007

“The impact of copula, structural, and binomial correlation approaches on CDO pricing”, Columbia University, February 2007

“On Valuing Credit Derivatives with Counterparty Risk”, Hedge Funds Analytics Conference, New York Princeton Club, June 2006; served as conference chair

“Recent Developments in Derivatives Markets”, In-house seminar for Bank of America, London, May 2006

“Advanced Techniques in Credit Derivatives”, Two-day seminars in New York, Toronto and London, organized by GARP, May 2006

“Pricing Credit Default Swaps with Counterparty Risk – A Combined Copula – LMM approach” Mathfinance Forum at HfB, Frankfurt 2006

“New Developments in Pricing and Risk Managing Credit Defaults Swaps,” Annual Canadian Derivatives Conference, Quebec, August 2005

“Credit Derivatives – Application, Pricing, and Risk Management,” Pre-conference Seminar at the Annual Canadian Derivatives Conference, Quebec, August 2005,

“A Model for a Fair Exchange rate”, Business & Economics Society International Conference, Flagstaff, July 2005

“Valuing Default Swaps on Correlated LMM Processes”, International Conference for Financial Engineering and Applications, MIT, Cambridge, November 2004

“The Application and Pricing of Credit Derivatives” Bank of Thailand, August 2004



“Hedging Market Risk, Credit Risk, and Operational Risk with Credit Derivatives” International University Bremen, July 2004

“Pricing Default Swaps Including Counterparty Default Risk – A Closed Form Solution” University of London, Imperial College, July 2004

“Is the Stock Market Crash over? Should we invest in Mutual Funds, Hedge Funds, or ETFs?” Public Library Honolulu, May 2004

“New Developments in Pricing Credit Derivatives,” University of Technology Sydney, August 2003

“Using Copulas to Value Credit Derivatives”, International Conference for Applied Mathematics (ICAM), Sydney, July 2003

“Arbitrage-free Pricing and Hedging of Exotic Derivatives”, Hochschule fuer Bankwirtschaft, Frankfurt, June 2003

“Pricing Credit Default Swaps including Reference Asset – Counterparty Default Correlation”, Global Finance Conference, Frankfurt, June 2003

“Structural versus Reduced Form Models – A comparison”, Chulalongkorn University, Thailand, June 2003

"Portfolio Credit Risk Modeling", 9<sup>th</sup> Global Finance Conference, Beijing, June 2002

“How to get great jobs and become CEO after one year” Hawaii Pacific University, June 2002

"Recent Advances in Credit Risk Management", Euroforum Conference on Credit Risk, Berlin, October 2001

"A Refined MACD Indicator – Evidence against the Random Walk Hypothesis?" Asia Pacific Finance Conference, Bangkok, July 2001

"Pricing and Risk-managing Complex Derivatives using Excel/VBA”, Hawaii Business Conference, June 2001

"The MACD Indicator – Does it Really Work?" Global Finance Conference, Los Angeles, April 2001

"Capturing the Volatility Smile of Options on High-tech Stocks – A

Combined GARCH-Neural Network Approach", 7<sup>th</sup> Asia Pacific Finance Association Conference, Shanghai, July 2000

"Volatility Arbitrage in Fixed Income Markets", Global Finance Conference, Istanbul, April 1999

"New Developments in Interest Rate Derivatives", International Banking Conference, Honolulu, August 1997

"The Art of Hedging Derivatives", International Banking Conference, Honolulu, August 1996

"New Developments in Pricing and Hedging Exotic Options", IFR Conference, Frankfurt, February 1994

**Other:**

- Referee for *Quantitative Finance*

- Working with a local bank to help their financial modeling

**Personal:  
Interests**

Jazz- and Classical Piano, Ukulele, Guitar  
Sport (Tennis, Table Tennis, Surfing)

**Student evaluations can be found at**

<http://www.ratemyprofessors.com/ShowRatings.jsp?tid=1676463>