Prof. Thomas Lux

Curriculum Vitae

Marital Status	married, three children
Place and Year of Birth	Weidhausen/Germany, August 4th, 1962
Citizenship	German

Current Position:

Professor of Monetary Economics and International Finance,
Department of Economics, University of Kiel, Germany

Address:

Office: Department of Economics, University of Kiel
Olshausenstr. 40, 24118 Kiel, Germany
Tel: 49-431-880-3661, Fax: 49-431-880-4383

Education:

Habilitation	Department of Economics, University of Bamberg, 1996
Ph.D.	Department of Economics, University of Wuerzburg, 1990
Diploma in Economics	Department of Economics, University of Wuerzburg, 1987

Prior Employment:

10/17 – 12/17	Visiting Professor at Deakin University, Melbourne
03/2017	Visiting Professor, University Kyoto und University of Hyogo, Kobe
2011 – 2016	Bank of Spain Professor in Computational Economics, Department of Economics, University Jaume I, Castellón, Spain
2010 – 2011	Visiting Professor, International Christian University Tokyo
2007	Visiting Professor, GREQAM, University Aix-Marseille II
2005	Visiting Professor, University of Technology Sydney
2002 – 2003	Visiting Professor, International Christian University Tokyo
1998 - 2000	Professor, Department of Economics, University of Bonn
1997 - 1998	Visiting Professor, Department of Economics, University of Bonn

1996 - 1997 Visiting Professor, Department of Economics, University of Frankfurt

1992 - 1997 Assistant Professor, Department of Economics, University of Bamberg

1988 - 1992 Research Assistant and Assistant Professor, Department of Economics, University of Wuerzburg

Awards, Grants etc.:

- Award of the Dissertation Price of the 'Lower Frankonian Foundation for Science' for the Ph.D. thesis, 1990
- Various research grants as a post-doc at the University of Bamberg, 1994 - 1997
- Various travel grants by German National Science Foundation (DFG), 1995, 1997, 2001, 2002, 2003
- Member of Sonderforschungsbereich 303 ('Information and Co-ordination of Economic Activity'), at the University of Bonn (special research unit financed by DFG), 1998/99
- Co-operation project with National Chengchi University Taipei ('Multi-Agent Simulation of Artificial Financial Markets'), financed by German Academic Exchange Service (DAAD), 1998/99.
- Various research grants by Landeszentralbank Schleswig-Holstein (since 2000)
- Host for Visiting Professor Taisei Kaizoji, Assoc. Professor, International Christian University Tokyo, 2000/01, research visit financed by Humboldt Foundation
- Fellowship of the Japan Society for the Promotion of Science (winter term 2002/03) for the project 'Interacting Agent Approach to Speculative Activity' (with Taisei Kaizoji), and Visiting Professor at International Christian University Tokyo
- Financial support for organization of the 'Workshop on Economics with Interacting Heterogeneous Agents', Kiel, 29 – 31 May 2003 by Fritz-Thyssen Foundation
- Selected for Annual Distinguished Lecture at the Institute for Studies in Finance, University of Essex, 7 – 9 May 2003
- Research Fellow at the *Financial Econometrics Research Centre* (FERC) of the University of Warwick
- Grant for a *Specific Targeted Research Project* (STREP) of the European Commission "The Complexity of Financial Markets: Heterogeneous Micro Agents and Aggregate Outcomes" (with a consortium including University of Warwick, Amsterdam, Marseille, Cagliari and ICTP Trieste, funding period: May 2005 to April 2008)
- Grant for a project on "Financial Markets as Complex Networks" by the Volkswagen Foundation, funding period: 2007 – 2010
- Financial support for organization of the 'Econophysics Colloquium', Kiel, 28 – 30 August 2008 by Fritz-Thyssen Foundation
- Grant for a project on "The Multi-Fractal Model of Asset Returns: Multivariate Extensions, Estimation, and Applications for Risk Management " by the Deutsche Forschungsgemeinschaft (German National Science Foundation), funding period: 2008 – 2010
- Grant for a project „Network Effects and Systemic Risk in the Banking Sector", by the Leibnizgemeninschaft, funding period: 2011 – 2014
- Coordinator of a consortium of seven European academic institutions in the project "Financial Distortions and Macroeconomic Performance: Expectations, Constraints, and Interaction of Agents" (FinMap) funded under the 7th Framework Programme in the "Objective SSH.2013.1.3-2: Better integrating financial markets into, policy focused, macro models".

Resonance in Media (selection):

Frequent press coverage of published research, e.g. by *BBC News*, *Financial Times*, *The Independent*, and many German newspapers

Miscellaneous contributions to economic policy debates

Ranked among the 1,000 most often quoted economist within the decade 1990 – 2000 (http://homepages.ulb.ac.be/~tcoupe/update/top1000c.html)

Appeared second in a ranking of the most often quoted German economists within the decade 1994 – 2004 (with a total of 297 quotations, cf. *Handelsblatt* of 11 May 2005)

Currently ranked among the 4 percent (6 percent) most often quoted economists from Germany (Europe) in *RePEc (Research Papers in Economics)* database: http://ideas.repec.org/cgi-bin/rank.cgi?plu102&caEO). The repository also lists my "h-Index" as 14.

Ranked among the "top 5 percent" of all authors according to the criteria: Number of Works, Number of Distinct Works, Weighted by Number of Authors, Number of Citations, Number of Citations, Weighted by Number of Authors, h-index, Number of Abstract Views in RePEc Services over the past 12 months, Number of Downloads through RePEc Services over the past 12 months, Number of Abstract Views in RePEc Services over the past 12 months, Weighted by Number of Authors, Number of Downloads through RePEc Services over the past 12 months, Weighted by Number of Authors, Betweenness measure in co-authorship network, Wu-Index cent (http://ideas.repec.org/cgi-bin/rank.cgi?plu102&caEO, Nov. 2012)

Listed on rank 20 within the category „Research achievements" and on rank 31 in the category "Overall influence" in the "Ökonomenranking" (ranking of German economists) of the leading German newspaper *Frankfurter Allgemeine Zeitung* (FAZ) of September 2013 (http://www.faz.net/aktuell/wirtschaft/wirtschaftswissen/f-a-z-oekonomenranking-die-einflussreichsten-oekonomen-im-gesamt-ranking-12560426.html)

Currently ranked as the second best academic teacher across all universities and fields in the German federal state (*Bundesland*) of Schleswig-Holstein in the student network www.MeinProf.de

Academic Services:

Head of Research Unit “Financial Markets and Macroeconomic Activity” of the Kiel Institute for the World Economy (2008 – 2014)

Dean (2008 - 2010) and Vice Dean (2000 – 2002 and 2007 - 2008) of the Faculty of Business, Economics, and Social Sciences at the University of Kiel

Founding Director of Ph.D. Program in “Quantitative Economics” (since 2002, until 2008) at the Faculty of Business, Economics, and Social Sciences, University of Kiel,

information: http://www.bwl.uni-kiel.de/vwlinstitute/gwrp/phd

Member of the Scientific Advisory Board of the Institute of World Economics at Kiel (2004 - 2008)

Theses supervised:

Wilpert, M., *Künstliche Aktienmarktmodelle auf Basis von Classifier-Systems* [Artificial Financial Markets with Classifier Learning]. Doctoral thesis, Kiel 2003

Pierdzioch, C., *International Financial Markets and Macroeconomic Dynamics: A NOEM Perspective*. Thesis for the habilitation, Kiel 2004.

Richter, K., *Evolutionary Learning in Auctions*. Doctoral thesis, Kiel 2005.

Zschischang, E., *Genetisches Programmieren als neues Instrument zur Prognose makroökonomischer Größen: Anwendungen auf Inflationsraten und Wechselkurse* [Genetic Programming as a New Tool for Forecasting in Empirical Macroeconomics: Applications to Inflation Rates and Exchange Rates]. Doctoral thesis, Kiel 2005.

Alfarano, S., *An Agent-Based Stochastic Volatility Model*. Doctoral thesis, Kiel 2006.

Yusupov, T., *The Efficient Market Hypothesis through the Eyes of An Artificial Technical Analyst*. Doctoral thesis, Kiel 2007.

Edler, L., *Analyzing Economic Data with Self-Organizing Maps: A Geometric Neural Network Approach*. Doctoral thesis, Kiel 2007.

Lee, H. –T., *The Markov-Switching Multifractal Model of Asset Returns: Estimation and Forecasting of Higher-Order Multinomial Specifications*. Doctoral thesis, Kiel 2007.

Hammermann, F., *Inflation Targeting and Monetary Integration in the European Emerging Market Economies*. Doctoral thesis, Kiel 2008.

Liu, R., *Multivariate Multifractal Models: Estimation of Parameters and Application to Risk Management.* Doctoral thesis, Kiel 2008.

Milakovic, M., Empirical Regularities in the Organization of Financial and Industrial Markets. Thesis for the habilitation, Kiel 2010.

Heitger, F., *Asset Price and Wealth Dynamics with Heterogeneous Expectations – A Deterministic Nonlinear Structural Model Approach*. Doctoral thesis, Kiel 2010.

Demary, M., *Applications of Agent-Based Models and Nonlinear Econometrics in Finance – A deterministic Nonlinear Structural Model Approach*. Doctoral thesis, Kiel 2010.

Lin, L., *Agent-Based Models, Macroeconomic Scaling Laws and Sentiment Dynamics*. Doctoral thesis, Kiel 2010.

Ghonghadze, J., *Essays on Micromotives and Macrobehavior, Expectation Formation, and Asset Price Dynamics*, Doctoral thesis, Kiel 2011.

Raddant, M., *Networks in Financial Markets*, Doctoral thesis, Kiel 2012.

Jang, T., *Moment-Based Estimation of Macroscopic Dynamic Models in Macroeconomics and Finance*, Doctoral thesis, Kiel 2012.

Fricke, D., *Coping with the Complexity of Financial Markets*, Doctoral thesis, Kiel 2013.

Finger, K., *Complex Interactions in Financial Markets*, Doctoral thesis, Kiel 2014

Leovey, A., *Multi-Fractal Models: Estimation, Forecasting and Option Pricing*, Doctoral thesis, Kiel 2014

Stolzenburg, U., *Essays on Economic Growth and Business Cycle Dynamics*, Doctoral thesis, Kiel 2015

Segnon, M., *Multifractal Models, Intertrade Durations and Return Volatility*, Doctoral thesis, Kiel 2015

Giglio, R., *Essays on Interlocking Directorates and Speculative Dynamics*, Doctoral thesis, Kiel 2015

Montagna, M., *Systemic Risk in Modern Financial Systems*, Doctoral thesis, Kiel 2016

Luu, D. T., *Empirical Applications of Network and Random Matrix Theories to Economic and Financial Complex Systems*. Doctoral thesis, Kiel, 2017.

Braack, A., *Modelling and Analysis of Financial Network Dynamics*, Doctoral thesis, Kiel, 2017.

Freund, C., *Financial System Stability*, Doctoral thesis, Kiel, 2017

Services as Referee:

- For scientific journals: Advances in Complex Systems, Ain Shams Engineering Journal, Annalen der Physik, Applied Economics, Applied Financial Economics, Applied Mathematics & Computation, Annals of Operations Research, Berkeley Electronic Journals in Theoretical Economics, Die Betriebswirtschaft, Bulletin of Economic Research, Central European Journal of Operations Research, Communications in Statistics: Simulation and Computation, Computational Economics, Computational Intelligence, Computational Management Science, Computational Statistics & Data Analysis, Econometrics Journal, Economic Journal, Economic Modelling, Economic Record, Electronic Journal of Evolutionary Modeling and Economic Dynamics, Empirical Economics, Energy Economics, Entropy, European Economic Review, European Journal of the History of Economic Thought, European Journal of Operations Research, European Physical Journal B, Europhysics Letters, Evolutionary and Institutional Economics Review, Decisions in Economics & Finance, Finance & Stochastics, Financial Markets & Portfolio Management, Financial Review, Games and Economic Behavior, German Economic Review, Human Systems Management, IEEE Transactions on Evolutionary Computation, IEEE Transactions on Systems, Man and Cybernetics, Information Science Journal, International Journal of Applied and Theoretical Finance, International Journal of Bifurcation and Chaos, International Journal of Computational Economics and Econometrics, International Journal of Systems Science, Journal of Artificial Societies and Social Simulation, Journal of Economics, Journal of Economic Behavior & Organization, Journal of Economic Dynamics & Control, Journal of Economic Literature, Journal of Economic Surveys, Journal of Evolutionary Economics, Journal of Financial Econometrics, Journal of Financial Stability, Journal of Futures Markets, Journal of Hydrology, Journal of Mathematical Economics, Journal of Optimization Theory and Applications, Journal of Statistical Mechanics, Journal of Systems and Software, Journal of the Royal Statistical Society, Journal of Wavelets, Multiresolution and Information Processing, Kredit & Kapital, Macroeconomic Dynamics, Mathematics and Financial Economics, Mathematics of Operations Research, Metroeconomica, Nature, NeuroPsychoEconomics, Oxford Economic Papers, Physica A, Physica D, Physical Review E, Physical Review Letters, PLoS ONE, Proceedings of the National Academy of Sciences of the U.S.A., Quantitative Finance, Review of World Economics, Risk, Scientific Papers, Scientific Reports, Statistical Papers, Review of Modern Physics, Science, Structural Change and Economic Dynamics, Studies in Nonlinear Dynamics & Econometrics

- Various contributed volumes appearing with North-Holland, Cambridge University Press
- Book monographs submitted to Cambridge University Press, Wiley-VCH, and Kluwer Acad. Publ.
- Research proposals submitted to: British Academy, Deutsche Forschungsgemeinschaft (DFG), Academy of Finland, Czech Academy of Sciences, Economic and Social Research Council (UK), National Science Foundation (USA), United States-Israel Binational Science Foundation, German-Israeli Foundation for Scientific Research and Development, Italian Ministry of Education and Science, Engineering and Physical Sciences Research Council (UK), Netherlands Organisation for Scientific Research (NWO), Thyssen Foundation, Research Foundation Flanders (Belgium), Swiss National Fond (Switzerland), Fond zur Förderung der wissenschaftlichen Forschung (Austria), Tiroler Wissenschaftsfond (Austria), Framework Programme 7 of the European Commission
- External examiner of Ph.D. theses at the University of Amsterdam, University of Technology Sydney, University of Sydney, Trinity College Cambridge, University of Orléans, University of Leuven, University of Hannover, National University of Singapore, Simon Fraser University Vancouver, University of Vaasa, University of Queensland, Brisbane, and of Habilitation theses at the University of Vienna and the University of Osnabrueck.
- Member of the evaluation committee for the Faculty of Economics and Business, University of Bielefeld, Germany (2005)
- Regular member of program committees of international scientific meetings in den the areas of: computational economics, agent-based modeling, quantitative finance, empirical finance, financial econometrics, econophysics, computational intelligence and artificial intelligence

Teaching Experience:

- *My teaching at the University of Kiel includes:*

  - lectures on Economic Fundamentals (Macroeconomics) for first year students
  - the following lectures for advanced students (third and fourth year Diploma students and Ph.D. students), most lectures have been taught in English:
    - Monetary Economics
    - International Monetary Economics
    - Theory of Financial Markets
    - International Finance
    - Pricing in Derivative Markets
    - Macroeconomic Aspects of Public Finance
    - International Investment (also as a course for executives)
    - Dynamic Macroeconomic Theory (mandatory MSc and Ph.D. course)
    - Agent-Based Models in Economics and Finance
  - various seminars on particular aspects of monetary and financial economics at Diploma, BA, MSc and Ph.D. level.

- *Additional teaching experience form previous positions:*

  - advanced lectures on:
    - International Trade (Bonn, Bamberg)
    - Labour Economics (Bonn)
    - Decision Theory (Bamberg)
    - Theory of the Business Cycle (Wuerzburg)
    - Growth Theory (Wuerzburg)

  - teaching in Executive Program at the "Wirtschafts- und Verwaltungsakademie Aschaffenburg" (German equivalent of an Executive MBA), three-year program in which I taught: Microeconomics, Macroeconomics, Principles of Economic Policy and Economic Systems, Financial Mathematics

- *Contributions to Various Summer Schools (contents: theoretical and empirical finance)*

- *Seminars on Quantitative Methods in Finance for Practitioners*

List of Publications

a) **Editorship of Journals and Monograph Series**

Member of Editorial Board of the journal *Quantitative Finance* (since 2000)

Member of Editorial Board of the *Journal of Economic Behavior and Organization* (2001 - 2014)

Member of Editorial Board of the journal *New Mathematics and Natural Computation* (since 2005)

Founding Editor of the *Journal of Economic Interaction and Coordination* (starting in 2006)

Member of Editorial Board of the *Journal of Network Theory in Finance* (since 2016)

Member of Editorial Board of the *Journal of Economic Dynamics and Control* (since 2018)

Co-Editor of monograph series *Dynamic Economic Theory/Dynamische Wirtschaftstheorie* published by Peter Lang Publ.

b) **Editorship of Special Issues and Contributed Volumes**

Alfarano, S., Fricke, D., Lux, T., and M. Raddant (Guest Editors) Special issue on "Network Approaches to Interbank Markets" of *Computational Economics* 47, no.1, 2016

Kaizoji, T., M. Politi and T. Lux (Guest editors) Special issue on "New Approaches in Quantitative Modeling of Financial Markets" of *Economics, the Open-Access, Open-Assessment Ejournal*, 2012

Lux, T., P. Kaltwasser and D. Veredas (Guest editors), Special issue on "Quantifying and Understanding Dysfunctions of Financial Markets" of the *Journal of Economic Dynamics and Control*, Vol. 36, no. 8, 2012.

Lux, T. and M. Raberto (Guest editors), Special issue: Managing Financial Instability in Capitalist Economies. *Economics, The Open-Access, Open-Assessment E-Journal*, 2010.

Alfarano, S., T. Lux and M. Milakovic (Guest editors), Topical issue on "Interdisciplinary Applications of Physics in Economics and Finance" of the *European Physical Journal*, Vol. 73, no.1, 2010

Farmer, D. and T. Lux (Guest editors), Special issue on "Statistical Physics Approaches in Economics and Finance" of the *Journal of Economic Dynamics and Control*, Vol. 38, 2008.

Cincotti, S., L. Gardini and T. Lux (Guest editors), Special issue on "New Advances in Financial Economics: Heterogeneity and Simulation" of the journal *Computational Economics*, Vol. 32, nos. 1-2, 2008.

Lux, T. and M. Marchesi (Guest editors), Special issue on "Heterogeneous Interacting Agents in Financial Markets" of the *Journal of Economic Behavior and Organization*, Vol. 49, no. 1, 2002.

Lux, T., S. Reitz and E. Samanidou, eds., *Nonlinear Dynamics and Heterogeneous Interacting Agents*. Lecture Notes in Economics and Mathematical Systems. Berlin: Springer, 2005.

M. Faggini and T. Lux, eds., *Coping with the Complexity of Economics*. Berlin: Springer, 2008.

c) **Articles in Refereed Journals**:

"Estimation of Sentiment Effects in Financial Markets: A Simulated Method of Moments Approach" (with Z. Chen), *Computational Economics* (in press)

"Estimation of Agent-Based Models using Sequential Monte Carlo Methods", *Journal of Economic Dynamics & Control* 91, 2018, 391–408

"Identifying Patterns in the Bank-Sector Credit Network of Spain" (with D. Luu), *Journal of Network Theory in Finance* 4, 2018, 1 - 38

"Generalized Method of Moment Estimation of Multivariate Multifractal Models" (with R. Liu), *Economic Modelling* 67, 2017, 136–148

"Structural Correlations in the Italian Overnight Money Market: An Analysis based on Network Configuration Models" (with (D. Luu and B. Yanovski), *Entropy* 19, 2017, 259

"Contagion Risk in the Interbank Market: A Probabilistic Approach to Cope with Incomplete Structural Information" (with M. Montagna), *Quantitative Finance* 17, 2017, 101 - 120

"Modeling and Forecasting the Volatility of Carbon Dioxide Emission Allowance Prices: A Review and Comparison of Modern Volatility Models" (with M. Segnon and R. Gupta), *Renewable & Sustainable Energy Reviews* 69, 2017, 692–704

"Network Formation in the Interbank Money Market: An Application of the Actor-Oriented Model" (with K. Finger), *Social Networks* 48, 2017, 237-249

"Forecasting the Volatility of the Dow Jones Islamic Stock Market Index: Long Memory vs. Regime Switching" (with A. Ben Nasr, A. Noomen Ajmi and R. Gupta), *International Review of Economics & Finance* 45, 2016, 559–571

"Financial Power Laws: Empirical Evidence, Models, and Mechanisms" (with S. Alfarano), *Chaos, Solitons & Fractals* 88, 2016, 3–18

"Forecasting Crude Oil Price Volatility and Value-at-Risk: Evidence from Historical and Recent Data" (with M. Segnon and R. Gupta), *Energy Economics* 56, 2016, 117–133

"A Model of the Topology of the Bank-Firm Credit Network and Its Role as Channel of Contagion", *Journal of Economic Dynamics and Control* 66, 2016, 36–53

"Bringing an Elementary Agent-Based Model to the Data: Estimation via GMM and an Application to Forecasting of Asset Price Volatility" (with J. Ghonghadze), *Journal of Empirical Finance* 37, 2016, 1–19

"The Effects of a Financial Transaction Tax in an Artificial Financial Market" (with D. Fricke), *Journal of Economic Interaction and Coordination* 10, 2015, 119-150

"On the Distribution of Links in the Interbank Network: Evidence from the e-MID Overnight Money Market" (with D. Fricke), *Empirical Economics* 49, 2015, 1463–1495

"Non-Homogeneous Volatility Correlations in the Bivariate Multifractal Model" (with R. Liu), *European Journal of Finance* 21, 2015, 971 – 991

"Emergence of a Core-Periphery Structure in a Simple Dynamic Model of the Interbank Market", *Journal of Economic Dynamics and Control* 52, 2015, A11–A23

"Core-Periphery Structure in the Overnight Money Market: Evidence from the e-MID Trading Platform" (with D. Fricke), *Computational Economics* 45, 2015, 359–395

"Forecasting Daily Variations of Stock Index Returns with a Multifractal Model of Realized Volatility" (with L. Morales-Arias and C. Sattarhoff), *Journal of Forecasting* 33, 2014, 532–541

"Relative Forecasting Performance of Volatility Models: Monte Carlo Evidence" (with L. Morales-Arias), *Quantitative Finance* 13, 2013, 1375-1394

"The Small Core of the German Corporate Board Network: New Evidence from 2010" (with M. Milakovic and S. Alfarano), *Complexity Economics* 2, 2013, 7–21

"Network Analysis of the e-MID Overnight Money Market: The Informational Value of Different Aggregation Levels for Intrinsic Dynamic Processes" (with D. Fricke and K. Finger), *Computational Management Science* 10, 2013, 187-211

"Inference for Systems of Stochastic Differential Equations from Discretely Sampled Data: A Numerical Maximum Likelihood Approach", *Annals of Finance* 9, 2013, 217 – 248

"Individual Expectations and Aggregate Behavior in Learning to Forecast Experiments" (with C. Hommes), *Macroeconomic Dynamics* 17, 2013, 373–401

"Correlations and Dependencies in the Global Financial Village" (with D. Kenett, M. Raddant, L. Zatlavi and E. Ben-Jacob), *International Journal of Modern Physics: Conference Series* 16, 2012, 13–28

"Estimation of an Agent-Based Model of Investor Sentiment Formation in Financial Markets", *Journal of Economic Dynamics & Control*, 36, 2012, 1284 - 1302

"Modeling the Dynamics of EU Economic Sentiment Indicators: An Interaction-Based Approach" (with J. Ghonghadze), *Applied Economics 44,* 2012, 3065 - 3088

"Parameter Estimation and Forecasting for Multiplicative Log-Normal Cascades" (with A. Leovey), *Physical Review E* 85, 2012, 046114

"Evolvement of Uniformity and Volatility in the Stressed Global Financial Village" (with D. Kenett, M. Raddant and E. Ben-Jacob), *PLoS ONE* 7, 2012, issue 2

"Identification of a Core-Periphery Structure Among Participants of a Business Climate Survey" (with U. Stolzenburg), *European Physical Journal B* 84, 2011, 521 - 533

"Sentiment Dynamics and Stock Returns: The Case of the German Stock Market", *Empirical Economics* 41, 2011, 663 – 679

"Switching Rates and the Asymptotic Behavior of Herding Models" (with A. Irle, J. Kauschke and M. Milakovic), *Advances in Complex Systems* 14, 2011, 359 - 376

"The Small Core of the German Corporate Board Network" (with M. Milakovic and S. Alfarano), *Computational and Mathematical Organization Theory* 16, 2010, 201 - 215

"Forecasting Volatility under Fractality, Regime-Switching, Long Memory and Student-t Innovations" (with L. Morales-Arias), *Computational Statistics & Data Analysis* 54, 2010, 2676 - 2692

"Rational Forecasts or Social Opinion Dynamics: Identification of Interaction Effects in a Business Climate Index", in: *Journal of Economic Behavior and Organization* 72, 2009, 638 – 655

"Multifractality and Long-Range Dependence of Asset Returns: The Scaling Behaviour of the Markov-Switching Multifractal Model with Lognormal Volatility Components" (with R. Liu and T. di Matteo), *Advances in Complex Systems* 11, 2008, 1 – 16

"The Markov-Switching Multifractal Model of Asset Returns: Estimation via GMM and Linear Forecasting of Volatility", *Journal of Business & Economics Statistics* 26, 2008, 194 – 210

"Time-Variation of Higher Moments in Financial Markets with Heterogeneous Agents: An Analytical Approach" (with S. Alfarano and F. Wagner), *Journal of Economic Dynamics & Control* 32, 2008, 101 - 136

"A Noise Trader Model as a Generator of Apparent Power Laws and Long Memory"(with S. Alfarano), *Macroeconomic Dynamics* 11 (Supplement 1), 2007, 80 - 101

"True and Apparent Scaling: The Proximity of the Markov-Switching Multifractal Model to Long-Range Dependence" (with R. Liu and T. di Matteo), *Physica A* 383, 2007, 35 - 42

"Forecasting Volatility and Volume in the Tokyo Stock Market: Long-Memory, Fractality and Regime Switching" (with T. Kaizoji), *Journal of Economic Dynamics & Control* 31, 2007, 1808 - 1843

"Empirical Validation of Stochastic Models of Interacting Agents: A 'Maximally Skewed' Noise Trader Model" (with S. Alfarano and F. Wagner), *European Journal of Physics B* 55, 2007, 183 – 187

"Agent-Based Models of Financial Markets" (with E. Samanidou, E. Zschischang and D. Stauffer), *Reports on Progress in Physics* 70, 2007, 409 - 450

"Estimation of a Simple Agent-Based Model of Financial Markets: An Application to Australian Stock and Foreign Exchange Data" (with S. Alfarano and F. Wagner), *Physica A* 370, 2006, 38 - 42

"Estimation of Agent-Based Models: The Case of an Asymmetric Herding Model" (with S. Alfarano and F. Wagner), *Computational Economics* 26, 2005, 19 - 49

"Genetic Algorithms as an Explanation of the Stylized Facts of Foreign Exchange Markets" (with S. Schornstein), *Journal of Mathematical Economics* 41, 2005, 169 - 196

"Detecting Multi-Fractal Properties in Asset Returns: An Assessment of the 'Scaling Estimator'", *International Journal of Modern Physics* 15, 2004, 481 - 491

"On Rational Speculative Bubbles and Fat Tails" (with D. Sornette), in: *Journal of Money, Credit, and Banking* 34, 2002, 589 - 610

"Turbulence in Financial Markets: The Surprising Explanatory Power of Simple Cascade Models", in: *Quantitative Finance* 1, 2001, 632 - 640

"Power-Laws and Long Memory", in: *Quantitative Finance* 1, 2001, 560 - 562

"Testing for Nonlinear Structure in an 'Artificial' Financial Market" (with S.-H. Chen and M. Marchesi), in: *Journal of Economic Behavior and Organization* 46, 2001, 327 - 342

"The Limiting Extremal Behaviour of Speculative Returns: An Analysis of Intra-Daily Data from the Frankfurt Stock Exchange", in: *Applied Financial Economics* 11, 2001, 299 – 315

"Some New Results on the Levy, Levy, and Solomon Microscopic Stock Market Model" (with E. Zschischang), in: *Physica A* 29, 2001, 563 - 573

"On Moment Condition Failure in German Stock Returns: An Application of Recent Advances in Extreme Value Statistics", in: *Empirical Economics* 25, 2000, 641 - 652

"Volatility Clustering in Financial Markets: A Micro-Simulation of Interacting Agents" (with M. Marchesi), in: *International Journal of Theoretical and Applied Finance* 3, 2000, 675 - 702

"Finite-Size Effects in Monte Carlo Simulations of Two Stock Market Models" (with E. Egenter and D. Stauffer), in: *Physica A* 268, 1999, 250 - 256

"Scaling and Criticality in a Stochastic Multi-Agent Model of a Financial Market" (with M. Marchesi), in: *Nature* 397, 1999, 498 - 500

"The Socio-Economic Dynamics of Speculative Markets: Interacting Agents, Chaos, and the Fat Tails of Return Distributions", in: *Journal of Economic Behavior and Organization* 33, 1998, 143 - 165

"Time Variation of Second Moments from a Noise Trader/Infection Model", in: *Journal of Economic Dynamics and Control* 22, 1997, 1 - 38

"The Stable Paretian Hypothesis and the Frequency of Large Returns: An Examination of Major German Stocks", in: *Applied Financial Economics* 6, 1996, 463 - 475

"Long-term Stochastic Dependence in Financial Prices: Evidence from the German Stock Market", in: *Applied Economics Letters* 3, 1996, 701 - 706

“Corridor Stability in the Dendrinos Model of Regional Factor Movements”, in: *Geographical Analysis* 27, 1995, 360 - 368

“Herd Behaviour, Bubbles and Crashes”, in: *Economic Journal* 105, 1995, 881 - 896

“Adaptive Expectations and Perfect Foresight in a Nonlinear Metzlerian Model of the Inventory Cycle” (with R. Franke), in: *Scandinavian Journal of Economics* 95, 1993, 355 - 363

“A Note on the Stability of Endogenous Cycles in Diamond's Model of Search and Barter”, in: *Journal of Economics* 56, 1992, 185 - 196

“The Sequential Trading Approach to Disequilibrium Dynamics”, in: *Jahrbuecher fuer Nationaloekonomie und Statistik* 209, 1992, 47 - 59

“Lagerhaltungszyklen aus der Sicht der Neuen Keynesianischen Makrooekonomik”, in: *Jahrbuch für Sozialwissenschaft* 42, 1991, 224 - 233

d) **Chapters in Handbooks**

“Empirical Validation of Agent-Based Models” (with R. Zwinkels), in C. Hommes and B. LeBaron, eds., *Handbook of Computational Economics*. Elsevier, Amsterdam, in press.

“Multifractal Models in Finance: Their Origin, Properties, and Applications” (with M. Segnon), in: S.-H. Chen, M. Kaboudan and Y.-R. Du, eds., *The Oxford Handbook of Computational Economics and Finance*. Oxford University Press, 2018, 204 - 248

“Applications of Statistical Physics to Finance and Economics”, chapter 9 in B. Rosser, ed., *Handbook of Research on Complexity,* Cheltenham 2009, 213 - 258 (Edward Elgar)

“Stochastic Behavioral Asset Pricing Models and the Stylized Facts, chapter 3 in T. Hens and K. Schenk-Hoppé, eds., *Handbook of Financial Markets: Dynamics and Evolution.* Amsterdam, 161 – 215 (North-Holland)

e) **Chapters in Edited Volumes**

“Network Effects and Systemic Risk in the Banking Sector”, in: F. Heinemann, U. Klüh and S. Watzka, eds., *Monetary Policy, Financial Crises, and the Macroeconomy. Festschrift for Gerhard Illing*, Berlin 2017, 59 – 78 (Springer)

“Hubs and Resilience: Towards more Realistic Models of Interbank Markets” (with M. Montagna), in: I. Arribas and E. Tortosa-Ausina, eds., *Banking Integration and Financial Crisis: Some Recent Developments*, Bilbao 2015, 163 – 192 (Fundación BBVA)

“A Simple Model of Herd Behaviour with Realistic Time Series Properties” (with S. Alfarano), in: G. Teysièrre and A. Kirman, eds., *Long Memory in Economics*, Berlin 2007, 345 - 361 (Springer)

“Excess Volatility and Herding in an Artificial Financial Market: Analytical Approach and Estimation” (with S. Alfarano and F. Wagner), in: W. Franz, H. Ramser and M.Stadler, eds., *Funktionsfähigkeit und Stabilität von Finanzmärkten*. Tübingen 2005, 241 – 254 (Mohr Siebeck)

“Emergent Statistical Wealth Distributions in Simple Monetary Exchange Models: A Critical Review”, in: A. Chatterjee, S. Yarlagadda and B. Chakrabarti, eds., *Econophysics of Wealth Distributions*. Berlin 2005, 51 – 60 (Springer)

“Market Fluctuations I: Scaling, Multi-Scaling and Their Possible Origins” (with M. Ausloos), in: A. Bunde, J. Kropp and H.-J. Schellnhuber, eds., *Theories of Disasters: Climate Disruptions, Heart Attacks and Market Crashes*. Berlin 2002, 372 – 409 (Springer)

"On the Role of Financial Factors in the Business Cycle: A Comparative Dynamic Analysis", in: Feichtinger, G., ed., *Dynamic Economic Models and Optimal Control.* Amsterdam 1992, 547 - 563 (North-Holland)

f) **Shorter Contributions and Didactical Work**

"Applications of Statistical Physics Methods in Economics: Current State and Perspectives", *European Physical Journal B* 225, 2016, 3255–3259

"WISU-Lexikon: Finanzmärkte" (with J. Ghonghadze), in: *WISU, Das Wirtschaftsstudium*, H. 6, 2013, 765 - 774

"Effizienz und Stabilität von Finanzmärkten: Stehen wir vor einem Paradigmenwechsel?", *Wirtschaftsdienst* 93, 2013, 16 -22

"Der dichte Kern des Netzwerks deutscher Aufsichtsräte und Unternehmensvorstände: Verflechtungsstrukturen im Jahr 2010" (with M. Milakovic and S. Alfarano), *Wirtschaftsdienst* 92, 2012, 770 - 776

"Financial Systems: Ecology and Economics", in: *Nature* 469, 2011, 303

"Mathematics, Methods and Modern Economics: The Dahlem Group on Economic modeling" (with D. Colander, H. Föllmer, A. Haas, K. Juselius, A. Kirman, and B. Sloth), in *Real-World Economics Review* 50, 2009, 118 - 121

"Die Welt als Modell und Vorstellung", *Süddeutsche Zeitung*, 22 August 2009

"The Financial Crisis and the Systemic Failure of the Economics Profession" (with D. Colander, A. Haas, M. Goldberg, K. Juselius, A. Kirman, and B. Sloth), in: *Critical Review* 21, 2009, 249 – 267.

"Economics Crisis" (with F. Westerhoff), in: *Nature Physics* 5, 2009, 2 – 3

"Worrying Trends in Econophysics" (with M. Gallegatti, S. Keen and P. Ormerod), in: *Physica A* 370, 2006, 1 - 6

"Micro-Simulations of Financial Markets and the Stylized Facts" (with F. Heitger), in Takayasu, H., ed., *Empirical Science of Financial Fluctuations: The Advent of Econophysics*. Berlin 2002, 123 – 134 (Springer)

"Kuenstliches Wirtschaftsleben im Computer: Mikro-Simulationen virtueller Finanzmaerkte", in: *Die Sparkasse* 11 (1999), 517 - 523

"A Master Equation Approach to the Modelling of Financial Markets Microstructure", in: Vlacic, L., T. Nguyen and D. Cecez-Kecmanovic, eds., *Modelling and Control of National and Regional Economies 1995*. Oxford 1996, 409 - 414 (Pergamon)

"Integration von Wertpapiermarkt und Geldmarkt im Keynesschen Makromodell: Ein Kommentar", in: *Jahrbuecher fuer Nationaloekonomie und Statistik* 214 (1995), 238 - 241

Head words "Doppelkeildiagramme" and "Neue Makrooekonomik", in: Geigant, F. et al., eds., *Lexikon der Volkswirtschaft*, 6th ed., Landsberg 1994

"Komparativ-statische Analyse eines 'rekonstruierten' klassischen Makromodells", in: Ernst, M. and J. Kopf, eds., *Elemente volkswirtschaftlicher Forschung und Lehre.* Berlin 1993, 53 - 64 (Duncker & Humblot)

"On the Role of Financial Factors in the Business Cycle: A Comparative Dynamic Analysis" (Extended Abstract) in: Gritzmann, P. et al., eds., *Operations Research '91.* Heidelberg 1992, 427 - 429

"Cobweb-Theorem und Tatonnement-Prozess", in: *WiSt, Wirtschaftswissenschaftliches Studium* H. 5, 1991, 245 - 248

"Aussenhandel im Grundmodell der Ungleichgewichtstheorie" (with S. Klatt and M. Ernst), in: *WISU, Das Wirtschaftsstudium*, H. 12, 1989, 706 - 711

“Oekonomische Analyse von Verkehrsstaus” (with P. Knauth), in: *WiSt, Wirtschaftswissenschaftliches Studium*, H. 11, 1989, 583 - 586

“Das Grundmodell der Ungleichgewichtstheorie” (with S. Klatt and M. Ernst), in: *WISU, Das Wirtschaftsstudium*, H. 8/9, 1989, 506 - 514

g) **Consulting**

“Eckpunkte einer nachhaltigen Antwort auf die Wachstumskrise“, Report to the *German Federal Ministry for the Environment, Nature Conservation and Nuclear Savety* (with C. Jaeger and G. Horn under collaboration of S. Fürst, W. Lass, L. Lin, A. Mandel, F. Meißner, C. Prelle, H. Prietzel and S. Schreiber), August 2009, 45 pages (available at http://www.bmu.de/files/pdfs/allgemein/application/pdf/wwk_gutachten_bf.pdf)

Consulting Project “Development of Tools for Simulation of Contagion Channels in Agent-Based Models“ for the *Financial Stability Assessment Division* of the *European Central Bank*, 2013

h) **Book Review**

J. Frankel, G. Gallo and A. Giovannini, eds., The Microstructure of Foreign Exchange Markets. Chicago 1996, in: *Kredit und Kapital* H. 1/1999, 149 - 153.

i) **Ph.D. and Habilitation Theses**:

“Keynesianische Stabilisierungspolitik in Neokeynesianischen Modellen”, Ph.D. Thesis, University of Wuerzburg, published in the series *Dynamische Wirtschaftstheorie* vol. 8, Peter Lang, Frankfurt/M. et al. 1990

“Spekulative Dynamik und Preisbildung auf Finanzmaerkten”, Thesis for the Habilitation, 243 p., University of Bamberg, 1995

Conferences and Seminars: Invited and Keynote Talks:

First Behavioral Macroeconomics Workshop: New Approaches to Macro-Financial Instability and Inequality, University of Bamberg, 15-16 June, 2018

Spring Meeting of the German Physical Society, Berlin, 11 – 16 March, 2018

Econophysics Colloquium, Warsaw, 5 – 7 July, 2017

ESHIA Summer School , Genoa, 15-17 June, 2017

Workshop on Validation Models for Agent-Based Models, University of Kent, 24 – 27 April 2018

Annual Meeting of the Japan Society for Evolutionary Economics, Kyoto, 25 – 26 March 2017

Seminar "Complexity and the Economy", University of Tübingen, 21-23 February 2017

Annual Meeting of the Section for Evolutionary Economics of the German Economic Association , University of Bremen, 2 – 4 June 2015

ESHIA Summer School , CNRS, Nice 18-20 May, 2015

Conference "Physics meets Finance", University of Ulm, 5 - 7 March, 2015

EconoFis 2014, Brazilian Center for Physics Research (CBPF), Rio de Janeiro, 1 – 3.October 2014

Eco**2 Symposium, London School of Economics and Political Science, 8 - 10 September 2014

IMK-Workshop „Pluralism in Economics", Berlin, 8 – 10 August 2014

ESHIA Summer School, Tianjin, China, 14 - 16 June 2014

20th International Conference "Computing in Economics and Finance", Oslo, Norway, 22 - 24 June 2014

GENED Workshop and School on Networks in Finance and Macroeconomics, Kiel, 28.-29. April 2014

Conference on Technologies and Applications for Artificial Intelligence, Taipei, 6 - 8 December 2013

ESHIA Winter Workshop, Singapore, 18 – 19 November 2013

Symposium "CeNDEF at 15", Amsterdam, 24 - 25 October 2013

Econophysics Colloquium and Asia Pacific Econophysics Conference 2013, Pohang, 29 – 31 June 2013

International Workshop on "Nonlinear Dynamics, Agent-Based Models, and Complex Evolving Systems in Economics", Bologna, 27 - 28 June 2013

Conference "Can We Still Trust in the Market?", Berlin, 29 November 2012

International Symposium "Economics in a Complex World: Networks, Agents and People", Madrid, 27 – 28 September 2012

4th World Congress on Social Simulation, Taipei, 4 – 7 September 2012 (keynote lecture)

17th Workshop on Economics with Heterogeneous Interacting Agents, Paris, 19 – 23 June 2012

Workshop on "Heterogeneity and Networks in Financial Markets", Aix-en-Provence, 23 March 2012

8th International Meeting of Experimental and Behavioral Economics, Castellón, 8 – 10 March 2012

Conference in honor of Paul De Grauwe, Leuven, 17/18 November 2011

GSDP Agent-Based Modeling Workshop, Paris, 8 – 10 September 2011

Third Graz Schumpeter Summer School "Whither Macroeconomics?", Graz, 3 -9 July 2011

16th Workshop on Economics with Heterogeneous Interacting Agents, Ancona, 23 - 25 June 2011

Workshop on Econo- and Sociophysics, Pohang University of Science and Technology, 12 February 2011

Workshop on Sociophysics, Institute for Statistical Mathematics, Tokyo, 6 January 2011

Conference on Quantifying and Understanding Dysfunctions of Financial Markets, Leuven, 15 – 16 October 2010

Workshop on Development of Agent-Based Models for the Global Economy and its Markets, European Commission, Information Society and Media Directorate-General, Brussels, 1 October 2010

Annual Meeting of the Society for Computational Economics, London, 13. - 17. July 2010 (Pre-conference one-day workshop)

EPOS 2010, TU Hamburg-Harburg, 23 – 25 June 2010

Workshop on Interacting Agents and Nonlinear Dynamics in Macroeconomics, Udine, 9 - 11 June 2010

11th Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Amsterdam, 31May - 2 June 2010

CESifo Conference "What's Wrong with Modern Macroeconomics", Munich, 6 – 7 November 2009

7. Kongress of the Gesellschaft für analytische Philosophie, University of Bremen, 14 – 17 September 2009

Workshop on Managing Financial Instability in Capitalistic Economies, Reykjavik University, 2 – 5 September 2009

International Workshop on Networks as Determinants of Economic and Political Behavior, Kiel, 29 – 31 August 2009

International Workshop on Nonlinear Dynamics and Financial Market Modelling, Beijing University, 9 – 10 October 2008

Symposium on Stochastic Dynamic Models in Finance and Economics, University of Southern Denmark, Odense, 15 – 16 August 2008

Conference "Complex Markets", Warwick, 31 March – 5 April 2008

Workshop on Quantitative Finance, HSH Nordbank, Kiel, 15 – 16 November 2007

2nd Toyota Workshop on Complex Systems, Baden bei Wien, 24 – 26 September 2007

Summer School on Computational Social Sciences, National Chengchi University Taipei, 27 August – 7 September 2007

Summer School in Agent-Based Finance, Trento, 2 – 13 July 2007

13th Annual German-American Frontiers of Science Symposium of the National Academy of Sciences and Humboldt Foundation, Irvine, 31 May – 2 June 2007

Workshop on Statistical Physics and Financial Markets, Abdus Salam Centre of the UNESCO, Trieste, 20/21 April 2007

Conference "Heterogeneous Agents in Financial Markets", Radboud University Nijmegen, 24 January 2007

Econophysics Colloquium 2006, International Christian University, Tokyo, 23 – 25 November 2006

Workshop "Modeli Dinamici per l'Economia e la Finanza", Urbino, 21 – 23 September 2006

Summer School on Complex Systems, Ambleside, 20 – 29August 2006

Conference "Ecople: Economics: from Tradition to Complexity", Capri, 2 – 3 July 2006

Workshop on the Econophysics of Stock Markets and Minority Games, Saha Institute for Nuclear Physics, Kolkota, 14 – 17 February 2005

Symposium „Autonomous Agency and the Evolution of Diversity", University of Melbourne, 16.December 2005

Econophysics Colloquium, Australian National University, Canberra, 14 – 18 November 2005

Summer School "Econophysics and Complexity", Navodari, Romania, 2 – 9 September 2005

Conference "Beyond Einstein – Physics for the 21st Century", Berne, 11 – 15 July 2005

Conference "Agent-Based Models for Economic Policy Design", University of Bielefeld, 30 June – 2 July 2005

Conference "Socio-Dynamics, Networks and Markets", University of Warwick, 9 - 11 May 2005

International Workshop on "Econophysics of Wealth Distribution", Kolkota, 15 – 19 March 2005

Symposium on "Business Models for the 21st Century – Risk Management and Expectations for Econophysics" at Nihon Keizai Nikkei Corp., Tokyo, 9 – 11 November 2004

Workshop "Volatility in Financial Markets", Lorentz Center, Leiden, 18 – 29 October 2004

9th Workshop on Economics with Heterogeneous Interacting Agents, Kyoto, 27 - 29 May 2004

Research Seminar in Monetary Economics on "Internationalisierung von Geldpolitik und Finanzmaerkten", HWWA Institute for Economic Research, 16 April 2004

AEA Stock Markets Conference: Analysis and Prediction, Paris, 1 - 2 April 2004

Winter School on Physics of Socio-Economic Systems, University of Konstanz, 16 – 21 February

Applications of Physics in Financial Analysis 4, Warsaw, 13 – 15 November 2003

10th International Meeting on Connectionist Approaches in Economics and Management Science, Nantes, 20 - 21 November 2003

Lustrum Symposium des Center for Nonlinear Dynamics in Economics and Finance, University of Amsterdam, 6 November 2003

Workshop on "Power Laws in the Social Sciences", George Madison University, Fairfax, U.S.A., 23 – 25 October 2003

Annual Distinguished Lectures at the Institute for Studies in Finance, University of Essex, 7 – 9 May 2003

Conference "Economic Behavior and Organization" in honor of Richard Day, Los Angeles, 26 - 27 April 2003

Eighth International Symposium on Simulation Science, Graduate University for Advanced Studies, Hayama, Japan, 5 – 8 March 2003

Taipei Winter Workshop on Economic Models and Related Problems, Academia Sinica 24 - 25 February 2003

Symposium on "Toward Control of Economic Change – Application of Econophysics" of the Nihon Keizai Nikkei Corp., Tokyo, 12 – 14 November 2002

Second ISM/SEKONDAI Economics Meeting, Institute of Statistical Mathematics, Tokyo, 11 November 2002

Workshop on Computational Economics and Finance: Simulation Methods and Agent-Based Models for the Foreign Exchange Market, Training Centre of the German Bundesbank, Frankfurt, 4 – 5 October 2002

International Conference on Economics and Physics, Denpasar, 28 – 31 August 2002

Workshop on Economic Dynamics, Leiden, 17 – 28 June 2002

7th Workshop on Economics with Heterogeneous Interacting Agents, Trieste, 30 May - 1 June 2002

Statphys – Kolkota IV, Indian Society for the Cultivation of Science, Calcutta, 14 – 19 January 2002

International Conference on Long-Range Dependent Stochastic Processes and their Applications, Indian Institute of Science, Bangalore, 7 – 12 January 2002

Workshop on Multi-Agent Computation in Natural and Artificial Economies, Brookings Institution, Washington, 26 – 28 October 2001

14th Marian Smoluchowski Symposium on Statistical Physics, Zakopane, 9 – 14 September 2001

Computational Physics School, Physikzentrum Bad Honnef, 2 - 6 April 2001

NATO Advanced Research Workshop on Applications of Physics in Economic Modelling, Academy of Sciences of the Czech Republic Prague, 8 - 10 February 2001

Symposium on “Empirical Science of Financial Fluctuations” of the Nihon Keizai Nikkei Corp., Tokyo, 15 – 17 November 2000

Workshop on Dynamic Models in Economics and Finance, Urbino, 28 - 30 September 2000

Second School on the Mathematics of Economics, Abdus Salam Centre of the UNESCO, Trieste, 21 August - 1 September 2000

Conference “Applications of Physics in Financial Analysis” of the European Physical Society, Liege, 13 - 15 July 2000

Workshop “Beyond Equilibrium and Efficiency”, Santa Fe-Institute, 18 - 24 May 2000

International Workshop “Economic Dynamics from the Physics Point of View”, Physikzentrum Bad Honnef, 27 - 30 March 2000

International School on “The Mathematical Modelling of Financial Markets and Econophysics”, Siena, 17 - 23 March 2000

Workshop on “Expectational and Learning Dynamics in Financial Markets”, Sydney, 13 - 14 December 1999

International Conference on “Facets of Universality in Complex Systems: Climate, Biodynamics and Stock Markets”, Castle Rauischholzhausen, 7 - 10 June 1999

Symposium of the Society for Nonlinear Dynamics and Econometrics, New York, 18 - 19 March 1999

Conference “Quantitative Methods in Finance 1997”, Sydney, Cairns and Canberra, 20 August - 3 September 1997

Annual Meeting of the German Statistical Association, Karlsruhe, 23 - 25 September 1996

About 10 to 15 contributed talks at scientific meetings and seminar presentations at academic institutions per year.