Head Economic Research Section Oesterreichische Nationalbank Otto Wagner Platz 3 1090 Vienna, Austria

Fax: (+43-1) 40420-7299
Email: martin.summer@oenb.at
Homepage: http://www.oenb.at/

(+43-1) 40420-7200

# Personal

Born 19.6.1967 in Nenzing/Vorarlberg (Austria)

Austrian Citizen

Married with Gabriele Puschnigg, two children (Paul and Peter).

# Education

Studies in Economics, Sociology and Philosophy at the University of Vienna. Magister in Economics, 1985-1991.

Phone:

Postgraduate Program in Economics, Institute for Advanced Studies, Vienna, 1992-1994.

Ph.D. in Economics, University of Vienna, 1994-1997.

# **Publications**

# Google Scholar Scores

	All	Since 2018
Citations	3857	1325
h-index	19	15
i10-index	31	16

# In Refereed Journals

What can central bank digital currency designers learn from asking potential users? (with Svetlana Abramova and Rainer Böhme and Helmut Elsinger and Helmut Stix ), *Nineteenth Symposium on Usable Privacy and Security (SOUPS 2023)*, 2023, isbn: 978-1-939133-36-6, Anaheim, CA, pp. 151–170, https://www.usenix.org/conference/soups2023/presentation/abramova, USENIX Association

Bank Solvency Stress Tests with Fire Sales (with Thomas Breuer and Branko Urošević), *Journal of Financial Stability*, 2023, https://www.sciencedirect.com/science/article/pii/S157230892300061X

Systematic Stress Tests on Public Data (with Thomas Breuer), *Journal of Banking and Finance*, 2020, 118, pp. 1 - 8

Endogenous Leverage and Asset Pricing in Double Auctions (with Thomas Breuer, Martin Jandačka, Hans Joachim Vollbrecht), *Journal of Economic Dynamics and Control*, 2015, pp. 144-160, DOI: 10.1016/j.jedc.2015.02.004

Credit Risk in General Equilibrium (with Klaus Rheinberger and Jürgen Eichberger), *Economic Theory*, 2014, 57, 407-435 DOI: 10.1007/s00199-014-0822-2.

Financial Contagion and Network Analysis, Annual Reviews of Financial Economics, 2013, 5, 38.

A Systematic Approach to Multi-Period Stress Testing of Portfolio Credit Risk (with With Thomas Breuer, Martin Jandačka and Javier Mencía), *Journal of Banking and Finance*, 2012, 36, 332-340.

Does Adding Up of Economic Capital for Market- and Credit Risk amount to Conservative Risk Assessment? (With Thomas Breuer, Klaus Rheinberger and Martin Jandačka), *Journal of Banking and Finance*, 2010, 34, 703-712.

How to find Plausible, Severe and Useful Stress Scenarios (with With Thomas Breuer, Klaus Rheinberger and Martin Jandačka), *International Journal of Central Banking*, 2009, 205-224.

Credit Risk and Asset Price Cycles (with Klaus Rheinberger), Computational Management Science, 2007, 5,4, 337-354.

Risk Assessment for Banking Systems (with Helmut Elsinger und Alfred Lehar), *Management Science*, 2006, 52, 9, 1301-1314.

Systemically Important Banks (with Helmut Elsinger und Alfred Lehar), *International Economics and Economic Policy*, 2006, 3, 1, 73-89.

Using Market Information for Banking System Risk Assessment (with Helmut Elsinger and Alfred Lehar) *International Journal of Central Banking*, 2006, 2, 1, 137-165.

Arbitrage and Optimal Portfolio Choice with Financial Constraints (with Helmut Elsinger), *Investment Management and Financial Innovations*, 2005, 3, 95-109.

Bank Capital, Liquidity and Systemic Risk, (with Jürgen Eichberger), *Journal of the European Economic Association*, 2005, 3 (2-3), 547-555.

Network Topology of the Interbank Market (with Michel Boss, Helmut Elsinger und Stefan Thurner), *Quantitative Finance*, 2004, 4, 1-8.

Banking Regulation and Systemic Risk, Open Economies Review, 2003, 43-70.

Financial Markets the Structure of Long Term Investments and Labor Income Risk, Research in Economics, 2002, 56, 265-298.

Does Mandatory Rotation Enhance Auditor Independence?, Zeitschrift für Wirtschafts- und Sozialwissenschaften, 1998, Heft 3, 327-359.

#### Contributions to Books

"Network Models and Systemic Risk Assessment", with Helmut Elsinger and Alfred Lehar, in: Fouque, Jean Pierre and Langsam Joseph (ed.) Handbook of Systemic Risk, Cambridge University Press, 2012.

"An Integrated Approach to Stress Testing: The Austrian Systemic Risk Monitor", with Michael Boss, Gerald Krenn and Claus Puhr, in Mario Quagliarello (ed.) Stress Testing the Banking System-Methodologies and Applications", Cambridge University Press, 2009.

"Hedge the Stress. Using Stress Tests to Design Hedges for Foreign Currency Loans", in Daniel Roesch, Harald Scheule (eds.), "Stress-testing for Financial Institutions - applications, regulations and techniques", Risk Books, 2008, London.

"Compounding Effects between Market and Credit Risk: The Case of Variable Rate Loans" (with Thomas Breuer, Martin Jandacka, Klaus Rheinberger) in: Resti, Andrea (ed.) The Second Pillar in Basel II and the Challenge of Economic Capital, Risk Books, 2008, London.

"Modelling Instability of Banking Systems and the Problem of Macro Stress Testing", ECB conference proceedings, "Modelling Financial Instability", ECB, September 2008.

Quantitative Modelling of Systemic Risk in a Globalized Banking System: Methodological Challenges, Federal Reserve Bank of Chicago, Conference Proceedings "Globalisation and Systemic Risk", edited by Douglas Eavanoff and George Kaufman, World Scientific Publishers.

Contagion Flow through Banking Networks (with Michael Boss and Stefan Thurner), in Lecture Notes in Computer Science, Volume 3038, Computational Science - ICCS 2004: 4th International Conference, Krakow, Poland, June 6-9, 2004, Proceedings, Part III, Editors: Marian Bubak, Geert Dick van Albada, Peter M. A. Sloot, et al. 2004 Springer-Verlag Heidelberg.

Financial Regulation in the New Europe (with Michael Würz), in Masciandero, D. eds., Financial Regulation in the New Europe, Routledge, 2004.

Financial System Transition in Central Europe, in Tumpel-Gugerell, G., Mooslechner, P. eds., Economic Convergence and Divergence in Europe: Growth and Regional Development in an Enlarged European Union, Edward Elgar, 2002.

Income Tax Enforcement with a Self Interested Auditor (with Muriel Niederle), Issues in Positive Political Economy, S Mansoob Murshed (ed), London: Routledge, 2002.

Finanzmarktregulierung und Wettbewerbsfähigkeit (with Gertrude Tumpel-Gugerell), Festschrift zum 60. Geburtstag von Univ.-Doz. Dr. Heinz Handler, Wien 2001.

#### Other Publications

What can CBDC designer learn from asking users?, with Svetlana Abramova, Rainer Böhme, Helmut Elsinger and Helmut Stix, OeNB Working Paper 241, 2022

A digital euro and the future of cash, with Hannes Hermanky, Monetary Policy and the Economy, Q1-Q2, 2022, pp. 91-108.

Bank solvency stress tests with fire sales, OeNB Working Paper 235, 2021

Does digitalization require Central Bank Digital Currencies for the general public?, with Paul Pichler and Beat Weber, Monetary Policy and the Economy, Q4/19, pp. 40-56, 2019

Systematic, Systemic Stress Tests, OeNB Working Paper 225, 2018.

Digital Money, with Alexander Schierlinger-Brandmayer and Paul Pichler, Monetary Policy and the Economy, 3, 2018, pages 23-35.

Digital Money, Cryptocurrencies and Central Banks, with Paul Pichler, SUERF, Conference Proceedings, edited by Ernest Gnan and Donato Masciandero, 2018, pp.99-107.

The financial system of the future, Monetary Policy and the Economy, with Christian Beer, Ernest Gnan and Manuel Mayer, 2017, 10, pages 34-42.

Solvency Stress Tests for Banks: Current Practice and Novel Options, Report for Sveriges Riksbank and Finansinspektionen, January 2017, published online, https://homepages.fhv.at/tb/cms/?download=Riksbank-report-05072017-1.pdf

Stress Test Robustness: Recent Advances and Open Problems, with Thomas Breuer, Financial Stability Report 25, 74-87 ,June 2013

Bank Supervision and Resolution: National and International Challenges. Summary of a Joint Workshop of CEPR, the University of Vienna and the OeNB, Financial Stability Report, 22, 2011.

Analyzing the Macroeconomy: Dynamic Stochastic General Equilibrium Modeling versus Agent-Based Modeling, Monetary Policy and the Economy, 3, 2011, 84 - 94.

The Economics of Bank Insolvency, Restructuring and Recapitalization Joint Research Workshop of the OeNB and the Max Planck Institute for Research on Collective Goods, with Helmut Elsinger, Financial Stability Report, 20, 2010, 115-122.

Bank Recapitalization and Restructuring: An Economic Analysis of Various Options Monetary Policy and the Economy, 2010, 1, 87-97.

Technological Change in the Field of Payment Instruments: Long-Term Implications for Monetary Policy and Competition Policy, Monetary Policy and the Economy, 2010, 3, 92-97.

Is Current Capital Regulation Based on Conservative Risk Assessment?, Financial Stability Report, 2008, 15, 112-118

The Economics of Financial Stability: Research Workshop at OeNB, Monetary Policy and the Economy, 2008, 3, 104-112.

The Financial Crises in 2007 and 2008 Viewed from the Perspective of Economic Research, Monetary Policy and the Economy, 2008, 4, 85-100.

Planning Drinking Water for Airplanes (with Marco Bijvank, Menno Dobber, Quentin Botton, Eleonore de le Court, Jean Christophe Van den Schrienk, Moria de Viron, Maarten Soomer, Myriam Cisneros-Molina, Klaus Schmitz, Remco van Hofstad, Ellen Jochemsz, Tim Musche, Maroeschka Hoekstra, Jeroen Mulder and Mark Paelinck, in: J. Hulshof (ed.), Proceedings of the fifty-second European Study Group with Industry, Centrum voor Wiskunde en Informacia, CWI Syllabus 55, 2006, 53-73.

Systemic Risk Monitor: Risk Assessment and Stress Testing of the Austrian Banking System: Model Documentation (with Thomas Breuer, Michael Boss, Helmut Elsinger, Gerald Krenn, Alfred Lehar and Claus Puhr), Technical Report, OeNB 2006.

Systemic Risk Monitor: A Model for Systemic Risk Analysis and Stress Testing of Banking Systems (with Michael Boss, Gerald Krenn und Claus, Puhr), Financial Stability Report 11, 2006, 83-95.

The Network Structure of the Austrian Interbank Market (with Michael Boss, Helmut Elsinger und Stefan Thurner), OeNB, Financial Stability Report 7, 2004, 77-88.

A New Approach to Assess the Risk of Interbank Loans, (with Helmut Elsinger und Alfred Lehar), OeNB, Finanzmarktstabilitätsbericht 3, 2002, 75-87.

# Work in Progress

GNU Taler and Hamilton: Two implementation of retail CBDC an economic an technological comparison, with Helmut Elsinger

Central Bank Digital Currency and the Future of Banking and Payments

An experimental asset market to test the theory of endogenous margins and collateral premia, with Thomas Breuer, Simon Gächter, Jonathan Thaler and Hans Joachim-Vollbrecht.

The theory of collateral equilibrium: A geometric approach, with Jürgen Eichberger.

# **Teaching**

Undergraduate-, graduate-, executive teaching

### University Vienna

Introductory Finance (undergraduate), 1993 - 1995

Corporate Finance (undergraduate), 1993 - 1995.

Systemic Risk Measures (graduate), seminar joint with Professor Thomas Gehrig, 2017.

Sind Krypto Coins, wie Bitcoin und Co. Geld? (undergraduate), Ringvorlesung der OeNB und der Uni Wien für Lehramtstudenten Geographie und Wirtschaftskunde, 2019.

### University of Birmingham

The Economics of Uncertainty, Information and Contracts (graduate, Master Program in Money, Banking and Finance), 1995-1996

### University of Regensburg

Microeconomics (undergraduate), 1996-2000.

International Economics (undergraduate), 1996-2000.

Industrial Organisation (undergraduate), 1996-2000.

### Center for Central Banking Studies, Bank of England

Stress Tests for Interbank Linkages, 2004

Modelling Credit Risk, 2006.

### Joint Vienna Institute, Vienna

Systemic Risk Management and Stress Testing (executive), 2008

Tools and Instruments in Financial Crisis Resolution (executive), 2009.

Solvency stress testing of banks Current practice and novel options (executive), 2018.

Systemic and Systematic Stress Testing (executive), 2019.

#### Credit Risk Summit London

Stress Testing Macro Economic Scenarios (executive), October 2006.

3L3 Cross-sector Training, Test training seminar on Risk Models, Bruxelles

Regulatory Capital for Market and Credit Risk Interaction: Is Current Regulation always Conservative? (executive), 2008.

European Supervisor Education Initiative, Luxemburg

The thorny arithmetic of financial contagion (executive), 2011.

European Commission, IPA (Instrument for Pre-Accession Assistance) Serbia, Belgrade

Network Analysis Development, (executive), 2013

# SAP executive summit, Vienna

Systemic Risk: Models, Data, Governance, 2018.

Union University, Master in Computational Finance (MFC), Belgrade

An introdution to probability theory with applications to computational Finance using R

### Outreach and Third Mission

Handelsakademie Bregenz

Was ist der digitale Euro?

Fachhochschule Vorarlberg

Warum Kryptowährungen und Blockchains mit Geld nichts zu tun haben, Crypto Finance – digitale Disruption im Finanzwesen?, 2022

Joanneum Research

Digitales Anonymgeld und neue Bezahlsysteme, Wien, 2022.

Finanzplanerrforum Austria

Der digitale euro, 2021.

Waldviertler Denkwerkstatt, Sparkasse Horn:

Welt ohne Geld. Wird das Bargeld abgeschafft?,2019.

WU matters, WU talks, Panel on Systemic Risk

The Costs of Destroying the Death Star

Blickpunkt Wirtschaft, Fachhochschule Vorarlberg, Dornbirn

Geld und Digitalisierung. Wie werden wir in Zukunft bezahlen?, 2018.

Panel Reinhard Selten Institute Köln

Narratives and Systemic Risk, 2018.

Panel Wirtschaftspolitisches Forum Graz, Schumpeter Center

"Staaten und Banken in der Krise. Zum Verhältnis von Mitgliedsstaaten, Finanzsystem und Zentralbank in der Europäischen Wärungsunion", 2013.

Panel, Österreichischer Städtetag, Dornbirn.

Europa, Österreich und die Herausforderung durch die Schuldenkrise", 2012.

Austrian Research Association, Vienna:

The Crisis of "2007/2008", 2012.

Landtagsclub der Grünen-Vorarlberg, Bregenz

Von der Finanz- zur Staatsschuldenkrise: Ursachen, Perspektiven und wirtschaftspolitische Implikationen, 2012.

Panel Discussion Universita Cattolica Milan

Monetary Policy During and After the Crisis, 2011.

Focus on Finance, Fachhochschule Vorarlberg, Dornbirn:

Währungsrisiken im Kreditgeschäft, 2008.

Panel Institute for Advanced Studies, Vienna:

The current Financial Crisis. Thoughts by economists for economists, 2008.

# **Positions**

Head of Economic Research Section, Oesterreichische Nationalbank, since April 2007.

Academic Consultant, Systemic Risk Analysis Division, Bank of England, January-March 2007.

Visiting Researcher, London School of Economics Financial Markets Group, January - June 2004.

Secondment Financial Industry and Regulation Division, Bank of England, January - June 2004.

Research Economist. Economic Studies Division, Oesterreichische Nationalbank, 2000-2007.

Lecturer in Economics, University of Regensburg, Germany, 1996-2000.

Lecturer in Economics, University of Birmingham, U.K., 1995-1996.

Lecturer in Finance, Center for Business Studies, University of Vienna, 1993-1995.

# Other Professional Activities

# Refereeing

Referee for International Journal of Central Banking, Review of Finance, Journal of Economic Dynamics and Control, Management Science, Journal of Financial Intermediation, Journal of Banking and Finance, Journal of Money Credit and Banking, Journal of Financial Stability, Journal of the European Economic Association, Econometrica, Journal of Finance, Economic Theory.

# Organisation of Workshops and Conferences

"The Economics of Financial Stability" with Hyun Shin, July 2008, "Consumer Payment Choice and Money Demand" with Helmut Stix, Francesco Lippi and Fernando Alvarez and Ulf von Kalkreuth, July 2010, "The Economics of Bank Insolvency, Restructuring and Recapitalisation" with Martin Hellwig, September 2010, "Analyzing the Macroeconomy: DSGE versus Agent based Modelling", with Markus Knell, Peter Howitt, Liam Graham and Stefano Neri, June 2011, "Bank Supervision and Resolution: National and International Challenges", with Thomas Gehrig and Gyöngyi Loranth, 2011, "Financial Markets and Real Economic Activity", with Burkhard Raunig and Johann Scharler 2012, "The Optimal Structure of Taxation: Theoretical Perspectives and Empirical Evidence", with Margit Schratzenstaller, 2013, "Bank regulation and liquidity risk in a global financial system", with Stefan Schmitz, 2013, "Banks and Governments in Globalised Markets", with Thomas Gehrig and Linda Tesar, 2013, "Macrofinancial Linkages and Current account imbalances" with Luis Catao, 2015, "Real analysis versus monetary analysis: Does it matter and what are its main implications for macroeconomic theory and policy?", with Peter Bofinger, 2018, "Digital currencies, central bank and the blockchain: Policy implications", with Raphael Auer BIZ, 2019, OeNB Economics Conference, annual policy conference, annualy since 2008, with Ernest Gnan.

#### Other Activities

Member of the High Level Task Force of the Eurosystem on Central Bank Digital Currency, Since February 2020.

Associate Editor Mathematical Finance, since January 2020

Project leadership OeNB Innovation Lab, March 2019 - July 2019. Automated document generation for recurrent reports with R, knitr, LaTeX and Git.

External expert for the evaluation of methods for stress tests of the banking system on behalf of the Riksbank and Finansinspektionen 2016-2017.

Member of the program committee of the Policy Research Workshop of the European Banking Authority, annually since 2012.

Jury Chair Finance, Student Research Paper Competition, Value Day, FH-Vorarlberg (2010 -2017).

Member of the macroprudential research network of the ECB (2010-2013).

Member of the Research Task Force (RTF) of the Basle Committee. Activities in the RTF: Local organizer Research Task Force Workshop on Applied Banking Research in Vienna 2005, Program Chair of RTF Workshop on Applied Banking Research Washington DC 2007, Member of RTF subgroup "Modelling the integration of market and credit risk." Member of RTF subgroup "Messages from the academic literature on risk measurement for the trading book."

Member of an external expert panel on systemic risk modeling Bank of England, 2006-2008.

Project Management: Software Project Systemic Risk Monitor, OeNB: 2003-2006.

### Presentations

**Invited Presentations** 

#### 2016-2023

University of Vienna, 2016, University of Nottingham 2017, Sveriges Riksbank and Finansinspektionen, 2017, Reinhard Selten Institute Cologne 2018, University of Belgrade, 2018, SUERF-Bocconi University, 2018, Swiss National Bank 2019, Serbian Academy of Sciences, 2019, University of Innsbruck, 2021, Adam Smith Business School, 2020.

#### 2011-2015

LSE, February 2011, Deutsche Bundesbank, Eltville, October 2011, Luxembourg ESE September 2011, Vienna Graduate School of Economics, March 2012, Swiss Banking Institute University of Zürich, May 2012, University of Vienna, May 2012, CRISIS Workshop London, June 2012, Austrian Research Association Vienna, October 2012, University of Linz, November 2012, National Bank of Serbia, March 2013, University of Economics, Vienna, April 2013, Czech National Bank, May 2013, 44th Konstanz Seminar, May 2013, University of Vienna, June 2013, Max Planck Institute Bonn, September 2013, London European Banking Authority, November 2013, London School of Economics, November 2013, Schumpeter Center University of Graz, Dezember 2013, Swiss National Bank June 2014, MaRS conference ECB, June 2014, EBA policy research workshop, November 2014, Isaac Netwon Institute, University of Cambridge, October and December 2014, University of Zürich, November 2014

#### 2006-2010

Bank of England, Jänner 2006, Center for Central Banking Studies, Februar 2006, ECB High level Conference, Modelling Financial Instability, July 2007, Sveriges Riksbank, June 2007, Fed Chicago International Banking Conference, September 2007, BIS, November 2007, Banco de España, April 2008, National Bank of Belgium, Brussels, May 2008, Fachhochschule Vorarlberg, Dornbirn November 2008, Sveriges Riksbank, September 2009, Collegium Budapest, October 2009, Universität Heidelberg, November 2009, Czech National Bank, November 2009, IASSA, Vienna, March 2010, Risk Europe, Frankfurt, March 2010, Bulagrian Central Bank, June 2010.

#### 2001-2005

Economic Theory Seminar, Universität Wien, Jänner 2001, Economics Seminar, HSG- St. Gallen, Jänner 2001, Deutsche Bundesbank: Workshop, Mai 2001 Eltville, Joint Vienna Institute, November 2001, Institute for Social Studies, Den Haag, März 2002, Workshop Deutsche Bundesbank, OenB, Wien, Februar 2002, Joint Seminar of JVI, World Bank and IMF, Wien, Juni 2002, Board of Governors, Research Seminar, Washington, Juni 2002, IMF, Washington, Juni 2002, Economics Seminar, Universität Mannheim, November 2002, Bank of England, Jänner, 2003, London School of Economics, Jänner 2003, Financial Service Authority, London, Jänner 2003, SUERF-Seminar, Securing Financial Stability: Problems and Prospects for new EU members, März 2003, Bank of England, März 2004, University of Birmingham, Mai 2004, London School of Economics, Mai 2004, Tinbergen Institute, Erasmus University Rotterdam, 2004, London School of Economics, Juni, 2004, Bank of England, Juni 2004, Universität Frankfurt, Juni 2004, European Central Bank, September 2004, Universität München, Oktober 2004, IMF, April 2005, Collegium Budapest, September 2005, Bundesbank, December 2005.

### 1995-2000

Research Seminar, University of Birmingham, October 1995, Workshop on Incentives, Information and Organization, IHS Wien, April 1996, Workshop on Employment, Distribution and Growth, Universität Regensburg, Juni, 1998, Finance Seminar, Institut für Empirische Wirtschaftsforschung und Institut für schweizerisches Bankwesen, Universität Zürich, Mai 2000, Workshop Sveriges Riksbank, Oktober 2000

# Conference Presentations

#### 2016-2023

Bocconi University 2018, EEA Cologne 2018, University of Grenoble 2019, University of Belgrade 2019, University of Liechtenstein 2019, AWG-Graz 2021, EEA Barcelona 2023

### 2011-2015

Brunnen, June 2011, ESEM Oslo, August 2011, Verein für Socialpolitik, Frankfurt, September 2011, Catholic University Milan, October 2011, RTF Istanbul, December 2011, Experimental Finance, SIAM Minneapolis, July 2012, Luxemburg September 2012, Verein für Socialpolitik, Göttingen, September 2012, European Workshop on General Equilibrium Theory, University of Paris 2014, Econometric Society World Congress 2015.

#### 2006-2010

ASSA Meetings, Boston 2006, Venice, C. R. E. D. I. T, Risks in Small Business Lending Conference, September 2006, Interaction of Market and Credit Risk, joint conference of Basle Committee Researach Task Force, Deutsche Bundesbank and Journal of Financial Intermediation, Berlin, December 2007, Financial Stability Modeling, FMA Europe, Panel on Banking, June 2008, Panel Discussion: Financial Crises and Economic Research, Institute for Advanced Studies, October 2008, Panel Discussion: Finanzkrise: Lehren für die Zukunft für die Regulierung von Banken und Finanzmärkten, Verein für Socialpolitik, Magdeburg, September 2009, Swiss National Bank, CREDIT, Venice, September 2010

#### 2001-2005

Western Economic Association, San Fracisco, Juli, 2001, Econometric Society, European Meeting, Lausanne, August 2001, Verein für Socialpolitik, Magdeburg, September 2001, Western Economic Association, Seattle, 2002, How to Pave the Road to E(M)U: The Monetary Side of the Enlargement Process (and its

Fiscal Support), Eltville, Oktober 2001, Workshop CES/IFO: Banking Regulation and Financial Stability, Venedig 2002, European Meeting of the Econometric Society, Venedig 2002, Meeting of the European Economic Association, Venedig 2002, Jahrestagung des Vereins fuer Socialpolitik, Innsbruck 2002, XI International Tor Vergata Conference, Rom, 2002, Workshop on Crises Bubbles and the Financial System, Universität Mannheim, Juni 2003, Bankwissenschaftliche Tage, Universität Münster, Juni 2003, Bank of England, Center of Central Banking Studies, Expert Forum, Mai 2004, European Central Bank, Worshop on Financial Stability, Juni 2004, European Economic Association, Madrid, August 2004, Sveriges Riksbank, Conference on Financial Stability, August 2004, Verein fuer Socialpolitik, Dresden, September 2004, International Atlantic Economic Association, London, März 2005

### 1995-2000

Game Theory and Economics, St. Petersburg, Juni 1996, European Economic Association (EEA), Istanbul, September 1996, Econometric Society, European Meeting (ESEM), Toulouse 1997, Verein für Socialpolitik, Bern, September 1997, Austrian Economic Association (NOEG), Wien, 1998, International Economic Study Group, Easter Conference, Warwick 1999, European Finance Association, London, August 2000, European Economic Association, Bozen, September 2000.

Last updated: August 9, 2023