

Scientific Work and C.V. of Franz Wirl

Wednesday, 07 December 2016

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born: November 21st, 1951, Vienna (Austria),
 1971-1976 studying mathematics and economics at the
 Technical University of Vienna.
 1977-1983 econometrician at the OPEC Secretariat.
 Since 1979 married, two children.
 1979-1981 visiting, University of Southern California on behalf of
 OPEC, ca. 5 months.
 1982 Ph. D., Technical University of Vienna (*optimal resource
 depletion: application to the world oil market*).
 1983-1988 Assistant Professor, Institute of Energy Economics,
 at the Technical University of Vienna.
 March-May 1988 Fulbright scholarship Harvard University.
 1989 'Habilitation', *Utility Economics*
 1989-1995 Associate Professor, Institute of Energy Economics at
 the Technical University of Vienna.
 1995 – 1999 Professor (C4), *utility economics*
 Otto-von-Guericke University of Magdeburg.
 since March 2000 Professor, *industry, energy and environment*,
 University of Vienna
 Sept.-Dec. 2004 Visiting, University of Technology, Sydney.
 Aug.–Dec. 2009 Visiting Researcher/Professor at
 East-West Center, Honolulu
 University of California at Santa Barbara
 Pontificia Universidad Católica de Chile
 Sept.-Dec. 2014 Visiting Professor
 University of Valencia
 Prince Songkla University Hat Yai, Thailand

Research: Resources, environment, utilities economics, energy, industrial management, intertemporal optimization, complex dynamics, dynamic games, principal-agent, real options, stochastic processes (and their control).

3 books, around 200 scientific papers most of them in international and refereed journals.

This scientific output is confirmed by #1 in the ranking of professors in management science in German speaking countries by the *Handelsblatt* in 2009, 2012 and in 2014.

1. Publications

1.1. Books

The Economics of Conservation Programs, Kluwer, Boston-Dordrecht-London, 1997.

Sind Energiesparmaßnahmen von Versorgungsunternehmen wirtschaftlich?, Springer Verlag, Wien-Berlin, 1994.

Die Theorie der öffentlichen Firmen: Rahmenbedingungen für effiziente Versorgungsunternehmen, Schriften zur öffentlichen Verwaltung und öffentlichen Wirtschaft, NOMOS Verlag, Baden-Baden, 1991.

Editor, **Special Issue on Central and Eastern European Energy Policy**, *International Journal of Global Energy Issues* 6, Nos. 3/4/5, 1994.

1.2. Papers published in international and refereed journals

- [180] with Robert Kunst and Hussein Moghaddam, Drivers and Obstacles to Biofuel: A Dynamic Panel Data Approach to Selected European Union (EU) Countries, accepted *International Journal of Energy and Statistics*, 2016.
- [179] with Carsten Helm, Climate policies with private information: The case for unilateral action, accepted *Journal of the Association of Environmental and Resource Economists*, 2016.
- [178] Indeterminacy and History Dependence of Strategically Interacting Players, *Economics Letters* 145, 19-24, 2016.
- [177] with Magdalena Six and Jacqueline Wolf, Switching Rates of Electricity Suppliers in Austria, *Journal of Business Economics*, 2016.
- [176] with Carsten Helm, Multilateral externalities: Contracts with private information either about costs or benefits, *Economics Letters* 141, 27-31, 2016.
- [175] with Jalal Dehnavi and Yuri Yegorov, Arbitrage in Natural Gas Markets, *International Journal of Energy and Statistics* Vol. 3, No. 4 (2015), DOI: 10.1142/S2335680415500180, 2015.
- [174] with Amela Ajanovic and Reinhard Haas, Reducing CO₂ emissions of cars in the EU: analyzing the underlying mechanisms of standards, registration taxes and fuel taxes, *Energy Efficiency*, DOI 10.1007/s12053-015-9397-4, 2015.
- [173] with Magdalena Six, Optimal global warming policies when discount rates are endogenous, *Resource and Energy Economics* 42, 53-70, 2015.
- [172] White Certificates - Energy Efficiency Programs under Private Information of Consumers, *Energy Economics* 49, 507-515, 2015
- [171] Downstream and Upstream Oligopolies when Retailer's Effort Matters, *Journal of Economics* 116, 99-127, 2015.
- [170] The Allocation of Energy Conservation, *Journal of Natural Resources Policy Research* 7, 167-172, 2015.
- [169] Output Adjusting Cartels Facing Dynamic, Convex Demand under Uncertainty: The Case of OPEC, *Economic Modeling* 44 (2015) 307–316, 2015.

- [168] with Carsten Helm, The Principal-Agent Model with Multilateral Externalities: An Application to Climate Agreements, *Journal of Environmental Economics and Management* 67, 141-154, 2014.
- [167] with Christoph Graf, Corporate Social Responsibility – A Strategic and Profitable Response to Entry? *Journal of Business Economics* 84, 917-927, 2014.
- [166] with Jonathan P. Caulkins, Gustav Feichtinger, Dieter Grass, Richard F. Hartl, Peter M. Korte, Andreas J. Novak, Andrea Seidl, A Dynamic Analysis of Schelling’s Binary Corruption Model: A Competitive Equilibrium Approach, *Journal of Optimization Theory and Applications* 161, 608-625, 2014.
- [165] Taxes versus permits as incentive for the intertemporal supply of a clean technology by a monopoly, *Resource and Energy Economics* 36, 248-269, 2014.
- [164] with Sebastian Caban, A Rationalization of Ups & Downs of Oil Prices by Sluggish Demand, Uncertainty, and Non-Concavity, *Natural Resource Modeling* 27, Issue 2, 178–196, 2014.
- [163] with Gustav Feichtinger and Peter Kort, Individual Firm and Market Dynamics of CSR Activities, *Journal of Economic Behavior and Organization* 86, 169–182, 2013.
- [162] Dynamic Corporate Social Responsibility (CSR) Strategies in Oligopoly, *OR Spectrum* 36, 229-250, 2014.
- [161] with Andreas Novak, Instability and Growth due to (Adjustment) Costs, *Numerical Algebra, Control and Optimization* 3, 63-76, 2013.
- [160] Optimal Introduction of Carbon Taxes, *Energy Systems*, 2012.
- [159] Global Warming: Prices versus Quantities from a Strategic Point of View, *Journal of Environmental Economics and Management* 64, 217-229, 2012.
- [158] OPEC’s Strategies, *Zeitschrift für Energiewirtschaft* 36, 227–237, 2012.
- [157] with Natalie Prügler and Wolfgang Prügler, Storage and Demand Side Management as Power Generator’s Strategic Instruments to Influence Demand and Prices, *Energy* 36/11, 6308-6317, 2011.
- [156] Global Warming and Heterogeneous (Green and Brown) Consumers, *Scandinavian Journal of Economics* 113, 866-884, 2011.
- [155] Comparing Environmental Policy Instruments within an Incomplete Contract Framework, *Journal of Public Economic Theory* 15, 319-340, 2013.
- [154] with Matthias Pickl, Auction Design for Gas Pipeline Transportation Capacity - The Case of Nabucco and its Open Season, *Energy Policy* 39, 2143-2151, 2011.
- [153] With Yuri Yegorov, Gas Transportation, Geopolitics and Future Market Structure, *Futures* 43, 1056-1068, 2011.
- [152] Taxing Incumbent Monopoly to Foster Entry, *Energy Economics* 33, 388-398, 2011.
- [151] with Roland Görlich, Interdependencies between Transport Fuel Demand, Efficiency and Quality: An Application to Austria, *Energy Policy* 41, 47-58, 2012.
- [150] Conditions for Indeterminacy and Thresholds in Neoclassical Growth Models, *Journal of Economics* 102, 193-215, 2011.
- [149] with Gustav Feichtinger, Modelling social dynamics (of obesity) and thresholds, *Games* (<http://www.mdpi.com/journal/games/> 2010).

- [148] with Matthias Pickl, Enhancing the EU's Energy Supply Security—An Evaluation of the Nabucco Project and an Introduction to Its Open Season Capacity Allocation Process, *Zeitschrift für Energiewirtschaft* 3/2010, 153-161, 2010.
- [147] with Matthias Pickl and Erich Wagner, The Impact of Introducing Seven-Day-Trading on the Austrian Electricity Market, *Zeitschrift für Energiewirtschaft* 4/2009, 322-329, 2009.
- [146] Optimal Pricing of Nondurables when Demand is Dynamic and Stochastic, *International Journal of the Economics of Business* 17, 187-206, 2010.
- [145] Dynamic Demand and Noncompetitive Intertemporal Output Adjustments, *International Journal of Industrial Organization* 28, 220-229, 2010.
- [144] Oligopoly meets Oligopsony: The Case of Permits, *Journal of Environmental Economics and Management* 58, 329-337, 2009.
- [143] OPEC as a Political and Economical Entity, *European Journal of Political Economy* 25, 399-408, 2009.
- [142] Intertemporal Monopolistic Pricing of Non-Durables, *Journal of Economics* 97, 97-119, 2009.
- [141] with Yuri Yegorov, Ukrainian Gas Transit Game, *Zeitschrift für Energiewirtschaft* 2/2009, 147-155, 2009.
- [140] with Yuri Yegorov, Energy relations between Russia and EU with emphasis on natural gas, *OPEC Energy Review* XXXII (December 2008), 301-322, 2008.
- [139] with Andreas Novak and Franz X. Hof, Happiness due to Consumption and its Increases, Wealth and Status, *Studies in Nonlinear Dynamics & Econometrics* 12 (Issue 4, Article 4), 1-32, *The Berkeley Electronic Press*, 2008.
- [138] Energy Conservation, Expectations and Uncertainty, *Energy Economics* 30, 1957-1972, 2008.
- [137] Resource Extraction by Cartels Facing Constraints on Cooperation, *Resource and Energy Economics* 30, 409-427, 2008.
- [136] Why Do Oil Prices Jump (or Fall)? *Energy Policy* 36, 1029-1043, 2008.
- [135] with Petra Amrusch, The Impact of Environmental Conditions on the Housing Market: An Analysis of the Paduan Housing market, accepted *Journal of Housing Economics*, 2007.
- [134] with Jürgen Noll, Abatement and Permits when Pollution is Uncertain and Violations are Fined, *Environmental and Resource Economics* 40, 299-312, 2008.
- [133] Intertemporal Investments into Synfuels, *Natural Resource Modeling* 21, 466-488, 2008.
- [132] Non-cooperative investment in partnerships and their termination, *Central European Journal of Operations Research* 17:479-494, 2009.
- [131] Tragedy of the Commons in a Stochastic Dynamic Game of a Stock Externality, *Journal of Public Economic Theory* 10, 99-124, 2008.
- [130] Do Multiple Nash Equilibria in Markov Strategies Mitigate the Tragedy of the Commons? *Journal of Economic Dynamics and Control* 31, 3723-3740, 2007.
- [129] Optimal Maintenance and Scrapping versus the Value of Back Ups, *Computational Management Science* 5, 379-392, 2008.
- [128] Reversible Stopping ("Switching") Implies Super Contact, *Computational Management Science* 5, 393-401, 2008.

- [127] with Simon Sagmeister, Changing of the Guards. New Coaches in Austria's Premier Soccer Division, *Empirica* **35**, 267-278, 2008.
- [126] with Jürgen Noll, Voluntary (Environmental) Standards, *Journal of Economics and Business* **59**, 275-285, 2007.
- [125] with Franz X. Hof, Wealth Induced Multiple Equilibria in Small Open Economy Versions of the Ramsey Model, *Homo oeconomicus* **25**(1), 1-22, 2008.
- [124] Energy Prices and Carbon Taxes under Uncertainty about Global Warming, *Environmental and Resource Economics* **36**, 313-340, 2007.
- [123] The Consequences of Irreversibilities on Optimal Intertemporal CO2 Emission Policies under Uncertainty, *Resource and Energy Economics* **28**, 105-123, 2006.
- [122] Pollution Thresholds under Uncertainty, *Environment and Development Economics* **11**, 493-506, 2006.
- [121] Social interactions within a dynamic competitive economy, *Journal of Optimization Theory and Applications* **133**, 385-400, 2007.
- [120] with Gustav Feichtinger, History versus Expectations: Increasing Returns or Social Influence? *Journal of Socio-Economics* **35**, 877-888, 2006.
- [119] with Thomas Dangl, The Consequences of Irreversibility on Optimal Intertemporal Emission Policies Under Uncertainty, *Central European Journal of Operations Research* **15**, 143-166, 2007.
- [118] with Claus Huber, Voluntary Internalisations Facing the Threat of a Pollution Tax, *Review of Economic Design* **9**, 337-362, 2005.
- [117] with Claus Huber, Entitling the Pollutee: Liability versus Standard under Private Information, *Environmental and Resource Economics* **30**, 287 – 311, 2005.
- [116] with Gustav Feichtinger, History Dependence in Concave Economies, *Journal of Economic Behavior and Organization* **57**, 390 – 407, 2005.
- [115] International Greenhouse Gas Emissions when Global Warming is a Stochastic Process, *Applied Stochastic Models in Business and Industry* **20**, 95-114, 2004.
- [114] Inter-Divisional Contracts, *International Journal of the Economics of Business* **11**, 197-216, 2004.
- [113] Thresholds in Concave Renewable Resource Models, *Ecological Economics* **48**, 259-267, 2004.
- [112] with Richard Hartl, Gustav Feichtinger, Peter Kort, Thresholds due to Relative Investment Costs, *Journal of Optimization Theory and Applications* **123**, 49-82, 2004.
- [111] with Thomas Dangl, Investment under Uncertainty: Calculating the Value Function when the Hamilton-Jacobi-Bellman-Equation cannot be Solved Analytically, *Journal of Economic Dynamics and Control* **28**, 1437-1460, 2004.
- [110] with Azra Kujundzic, Impact of OPEC Conferences on World Oil Prices 1984 – 2001, *The Energy Journal* **25/1**, 45-62, 2004.
- [109] Sustainable growth, renewable resources and pollution: thresholds and cycles, *Journal of Economic Dynamics and Control* **28**, 1149-1157, 2004.
- [108] Regulating vertically integrated utilities when transfers are costly but revenues are beneficial, *Public Choice* **114**, 175-195, 2003.

- [107] with M. Dworak, G. Feichtinger, A. Prskawetz, and A. Novak, Optimal Long Run Budgetary Policies under the Maastricht Criteria or a Stability Pact, *Macroeconomic Dynamics* **6**, 665-686, 2002.
- [106] with Gustav Feichtinger, Intrafamilial Consumption and Saving under Altruism and Wealth Considerations, *Economica* **69**, 93-111, 2002.
- [105] Stability and Limit Cycles in Competitive Equilibria subject to Adjustment Costs and Dynamic Spillovers, *Journal of Economic Dynamics and Control* **26**, 375-398, 2002.
- [104] with Gustav Feichtinger, Richard F. Hartl and Peter Kort, The Dynamics of a Simple Relative Adjustment-Cost Framework, *German Economic Review* **2**, 255 – 268, 2001.
- [103] with Cees Withagen, Complexities Due to Sluggish Expansion of Backstop Capacities, *Journal of Economics* **72**, 153-174, 2000.
- [102] with Gustav Feichtinger, Instabilities in Concave, Dynamic, Economic Optimizations, *Journal of Optimization Theory and Applications* **107**, 57-68, 2000.
- [101] Lessons from the Utility Conservation Programmes in the United States, *Energy Journal* **21/1**, 87 – 108, 2000.
- [100] Optimal Accumulation of Pollution: Existence of Limit Cycles for the Social Optimum and the Competitive Equilibrium, *Journal of Economic Dynamics and Control* **24**, 297-306, 2000.
- [99] Conservation Incentives for Consumers, *Journal of Regulatory Economics* **15**, 23 – 40, 1999.
- [98] Paternalistic Principals, *Journal of Economic Behavior and Organization* **38**, 403 - 419, 1999.
- [97] with A. Prskawetz, G. Feichtinger, M. Luptacik, F. Hof, A. Milik, W. Lutz, Endogenous Growth of Population and Income Depending on Resource and Knowledge, *European Journal of Population* **14**, 305 – 331, 1999.
- [96] with Gustav Feichtinger and Michael Kopel, Threshold Advertising Rules in a Duopoly Framework, *Central European Journal of Operations Research* **7**, 39–52, 1999.
- [95] De- and Reforestation: Stability, Instability and Limit Cycles, *Environmental and Resource Economics* **14**, 463 – 479, 1999.
- [94] Socio-Economic Typologies of Bureaucratic Corruption and Implications, *Journal of Evolutionary Economics* **8**, 199 - 220, 1998.
- [93] Complex Dynamic Environmental Policies, *Resource and Energy Economics* **21**, 19-41, 1999.
- [92] Dynamic Externalities: Comparing Conditions for Hopf Bifurcations under Laissez Faire and Planning, *Annals of Operations Research* **89**, 177 – 194, 1999.
- [91] with Gustav Feichtinger and Sergio Rinaldi, Corruption Dynamics in Democratic Systems, *Complexity* Vol 5, No 3, 53 - 64, 1998.
- [90] with Claus Huber, The Polluter Pays versus the Pollutee Pays Principle under Asymmetric Information, *Journal of Environmental Economics and Management* **35**, 69 - 87, 1998.
- [89] with Claus Huber and I. O. Walker, Joint Implementation: Strategic Reactions and Possible Remedies, *Environmental and Resource Economics* **12**, 203-224, 1998.
- [88] with Wolfgang Orasch, Analysis of United States' Utility Conservation Programs, *Review of Industrial Organization* **13**, 467 - 486, 1998.

- [87] Consumer Demand over Time and Intertemporal Market Equilibria, *Central European Journal of Operations Research and Economics* **5**, 177-203, 1997.
- [86] with Wolfgang Orasch, Technological Efficiency and the Demand for Energy (Road Transport), *Energy Policy* **25**, 1129 - 1136, 1997.
- [85] Stability and Limit Cycles in One-Dimensional Dynamic Optimizations of Competitive Agents with a Market Externality, *Journal of Evolutionary Economics* **7**, 73-89, 1997.
- [84] with Claus Huber, Optimal Incentives to Reduce Transboundary Emissions: Theory and Empirical Illustration to Sulphur Emissions in Austria and (former) Czechoslovakia, *EMPIRICA* **23**, 149-172, 1996.
- [83] Pathways to Hopf bifurcations in dynamic, continuous time optimization problems, *Journal of Optimization Theory and Applications* **91**, 299-320, 1996.
- [82] Dynamic voluntary provision of public goods - extension for nonlinear strategies, *European Journal of Political Economy* **12**, 555-560, 1996.
- [81] Strategic Consumers' Reactions to Conservation Incentives, *Utilities Policy* **5**, 109-113, 1995.
- [80] Strategic Reactions to Conservation Incentives by Consumers and Utilities, *Pacific and Asian Journal of Energy* **5**(2), 187-195, 1995.
- [79] Can Leviathan Governments Mitigate the Tragedy of the Commons?, *Public Choice* **87**, 363-378, 1996.
- [78] The Design of Optimal Conservation Programs by Electric Utilities Considering Strategic Consumer Behavior, *Management Science* **42**, 404-414, 1996.
- [77] with Engelbert Dockner, Leviathan Governments and Carbon Taxes: Costs and Potential Benefits, *European Economic Review* **39**, 1215-1236, 1995.
- [76] Global Warming and Carbon Taxes: A Dynamic Game between Energy Consumers and Producers, *Journal of Policy Modelling* **16**, 577-596, 1994.
- [75] The Ramsey Model Revisited - the Optimality of Cyclical Consumption and Growth, *Journal of Economics* **60**, 81-98, 1994.
- [74] with Gustav Feichtinger, Persistent Cyclical Consumption. Variations on the Becker-Murphy Model on Addiction, *Rationality and Society* **7**, 156-166, 1995.
- [73] The Exploitation of Fossil Fuels under the Threat of Global Warming and Carbon Taxes: A Dynamic Game, *Environmental and Resource Economics* **5**, 333-352, 1995.
- [72] Impact of Regulation on Demand Side Conservation Programs, *Journal of Regulatory Economics* **7**, 43-62, 1995.
- [71] The Cyclical Exploitation of Renewable Resource Stocks May Be Optimal, *Journal of Environmental Economics and Management* **29**, 252-261, 1995.
- [70] Efficient Introduction of Pigovian Taxes, *Environmental and Resource Economics* **4**, 535-544, 1994.
- [69] with Gustav Feichtinger, On the Stability and Potential Cyclicity of Corruption within Governments subject to Popularity Constraints, *Mathematical Social Sciences* **28**, 113-131, 1994.
- [68] Is Sir Karl Raimund Popper a Precursor of Public Choice?, *Journal of Interdisciplinary Economics* **5**, 107-119, 1994.
- [67] On the Unprofitability of Utility Demand-Side-Conservation Programmes, *Energy Economics* **16**, 46-53, 1994.

- [66] with A. Prskawetz and G. Feichtinger, Endogenous population growth and the exploitation of renewable resources, *Journal of Mathematical Population Studies* **5**, 87-106, 1994.
- [65] Dynamic Consumer Demand: A Comparison of Monopolistic and Oligopolistic Intertemporal Market Equilibria, *International Journal of Systems Science* **25**, 1761-1774, 1994.
- [64] with I. O. Walker, Irreversible Price-Induced Efficiency Improvements: Theory and Empirical Application to Road Transportation, *The Energy Journal* **14** (4), 183-205, 1993.
- [63] Stability of the Price Reaction Function when the Consumers Employ Perfect Foresight, *Natural Resource Modelling* **7**, 149-161, 1993.
- [62] with G. Feichtinger, A Dynamic Variant of the Battle of the Sexes, *International Journal of Game Theory* **22**, 359-380, 1993.
- [61] The World Oil Market after the Iraq-Kuwait Crisis. Economic and Politico-Economic Considerations, *Energy Sources* **16**, 75-88, 1994.
- [60] Energy Pricing when Externalities are Taxed, *Resource & Energy Economics* **15**, 255-270, 1993.
- [59] Energy Taxes - Some Critical Remarks, *Energy Sources* **16**, 1-15, 1994.
- [58] A New Route to Cyclical Strategies in Two-Dimensional, Concave Optimal Control Models, *Recherche Economique* **48**, 165-173, 1994.
- [57] Transboundary Emissions: Are Subsidies Efficient? A Game Theoretical Analysis of Subsidizing Environmental Protection in Eastern Europe, *International Journal of Global Energy Issues* **6** Nos. 3/4/5, Special Issue on Central and Eastern European Energy Policy, 263-267, 1994.
- [56] The Dynamics of Lobbying - A Differential Game, *Public Choice* **80**, 307-323, 1994.
- [55] Pigouvian Taxation of Energy for Stock and Flow Externalities and Strategic, Non-Competitive Pricing, *Journal of Environmental Economics and Management* **26**, 1-18, 1994.
- [54] with G. Feichtinger and A. Novak, Limit Cycles in Intertemporal Adjustment Models - Theory and Applications, *Journal of Economic Dynamics and Control* **18**, 353-380, 1994.
- [53] The Impact of Conservation, Technology and the New Registration Tax on Automobiles on Energy Consumption, *Empirica* **19**, 95-113, 1992.
- [52] The Problem of Social Costs Revisited - The 'Efficiency' of Laissez Faire over Pigouvian Intervention, *International Review of Economics and Finance* **1**, 295-303, 1992.
- [51] with H. J. Hoffmann, Environmental Policy in the F.R.G.: Its Economic Costs and the Sectoral Impact, *Journal of Environmental Management* **37**, 103-115, 1993.
- [50] Oil Taxation in the Presence of Consumer Adjustment Costs and Volatile Prices - The Case of Small Countries, *International Journal of Energy Research* **16**, 771-778, 1992.
- [49] The European Power Industry - Characteristics and Scope for Deregulation, *OPEC Review* **16**, 137-150, 1992.
- [48] Impact of the Political and Economic Restructuring in Eastern Europe on the Availability of Net Energy Exports - An Empirical Framework, *Economics of Planning* **24**, 181-202, 1991.

- [47] Dynamic Demand and Noncompetitive Pricing Strategies, *Journal of Economics (ZfN)* **54**, 227-249, 1991.
- [46] On the Marginal Costs of Garbage Disposal - A Viewpoint, *The International Journal of Environmental Studies* **40**, 165-170, 1992.
- [45] with Michael Rauscher, Monopolistic Peak Load Pricing when Demand is Dynamic, *International Journal of Systems Science* **23**, 457-471, 1992.
- [44] Impact on World Oil Prices when Larger and Fewer Producers Emerge from a Political Restructuring of the Middle East, *Energy The International Journal* **17**, 367-375, 1992.
- [43] The Energy Markets of Eastern Europe: Impact from Deregulation, *International Journal of Global Energy Issues* **4**, 28-39, 1992.
- [42] Needle Peaking Caused by Time of Day Tariffs, *International Journal of Electrical Power & Energy Systems* **13** 175-181, 1991.
- [41] Energy Demand and Consumer Price Expectations: An Empirical Investigation of the Consequences from the Recent Oil Price Collapse, *Resources and Energy* **13**, 241-262, 1991.
- [40] The Restructuring of Eastern Europe and its Possible Consequences for the Atmospheric Environment, *Environmental Management* **15**, 765-772, 1991.
- [39] Economics of (Oil) Price Politics: Penalizing Price Changes, *Journal of Policy Modelling* **13**, 515-527, 1991.
- [38] Cyclical Strategies in Two-Dimensional Optimal Control Models: Necessary Conditions and Existence, *Annals of Operations Research* **37**, 345-356, 1992.
- [37] with Gustav Feichtinger, Politico-Economic Cycles of Regulation and Deregulation, *European Journal of Political Economy* **7**, 469-485, 1991.
- [36] Monopolistic Resource Extraction and Limit Pricing: The Market Penetration of Competitively Produced Synfuels, *Environmental and Resource Economics* **1**, 157-178, 1991.
- [35] with Elisabeth Szirucsek, Energy Modelling - A Survey, *OPEC Review* **14**, 361-378, 1990.
- [34] Dynamics of Commodity Taxation - an Example of an Energy Tax, *System Dynamics Review* **7**, 145-158, 1991.
- [33] with Reinhard Haas, Market Penetration of Natural Gas in Europe: Prospects and Impediments, *Energy Sources* **14**, 21-32, 1992.
- [32] Phasing of Deregulation: Normative versus Positive Objectives, *Journal of Regulatory Economics* **3**, 89-106, 1991.
- [31] with Hannes Pfeiffenberger, The Costs of Hydro Power, Evidence on Learning-by-Doing, Economies of Scale and Resource Constraints, *International Journal of Energy Research* **14**, 893-899, 1990.
- [30] Analytics of Demand-Side Conservation Programs, *Energy Systems & Policy* **13**, 285-300, 1989.
- [29] The Political Economics of Wackersdorf: Why do Politicians Stick to Their Past Decisions, *Public Choice* **70**, 343-350, 1991.
- [28] Future World Oil Prices and Production Level: A Comment, *Energy Journal* **11/3**, 131-134, 1990.

- [27] Optimal Introduction of Time-of-Day Tariffs in the Presence of Consumer Adjustment Costs, *Journal of Economics (ZfN)* **51**, 259-271, 1990.
- [26] Dynamic Demand and Optimal Opec Pricing: An Empirical Investigation, *Energy Economics* **12**, 174-176, 1990.
- [25] Evaluation of Management Strategies under Environmental Constraints, *European Journal of Operational Research* **55**, 191-200, 1991.
- [24] Dynamic Demand, Consumer Expectations and Monopolistic Resource Extraction: An Application to OPEC Pricing Policies, *Empirical Economics* **16**, 379-400, 1991.
- [23] Efficient Tariffs to Market District Heat, *Energy The International Journal* **15**, 773-779, 1990.
- [22] Impact of Environmental Regulation on Economic Activity - Austria, *EMPIRICA* **16**, 209-233, 1989.
- [21] Do Volatile Oil Prices and Consumer Adjustment Costs Justify an Additional Petroleum Tax?, *Energy Journal* **11/1**, 147-150, 1990.
- [20] Economic Theories of (De-) Regulation: Lessons for the Power Industry, *Energy Exploration and Exploitation* **7**, 238-250, 1989.
- [19] Sluggish Demand, Price Expectations and Monopolistic Resource Extraction, *INFOR* **28**, 392-402, 1990.
- [18] Optimal Capacity Expansion of Hydro Power Plants, *Energy Economics* **11**, 133-136, April 1989.
- [17] The Future of World Oil Prices: Smooth Growth or Volatility, *Energy Policy* **18**, 756-763, 1990.
- [16] Asymmetrical Energy Demand Pattern: Some Theoretical Explanations, *Opec Review*, **12**, 353-367, 1988.
- [15] Thermal Comfort, Energy Conservation, and Fuel Substitution: An Economic-Engineering Approach, *Energy Systems and Policy* **11**, 311-328, 1988.
- [14] Resource Extraction of Imperfect Substitutes, *Energy Economics* **10**, 242-248, 1988.
- [13] Optimal Electricity Production from Hydro Power Plants with Storage, *Zeitschrift für Operations Research* **32**, B121-B136, 1988.
- [12] Volatile Oil Prices: Two Propositions from Economics and "Realpolitik", *Natural Resources Forum* **12**, 91-94, 1988.
- [11] with Gerd Infanger and Erich Unterwurzacher, Planning of Production under Environmental Constraints, *Engineering Costs and Production Economics* **12**, 299-305, 1987.
- [10] Joint Production of Substitutable, Exhaustible Resources or: Is Flaring Gas Rational, *Journal of Economic Dynamics and Control* **11**, 499-511, 1987.
- [9] Production/Reserve Ratios and the Taxation of Oil Revenues, *Opec Review* **11**, 251-261, 1987.
- [8] Energy Policy of Industrialized Countries: The Austrian Experience Evaluated within an Empirical Framework, *Energy Exploration and Exploitation* **5**, 141-156, 1987.
- [7] Fuel Conservation under Rational Expectations of the Energy Price Evolution, *Resources and Energy* **8**, 185-197, 1986
- [6] with Abodande Tunji and Franz Köstl, Energy Demand Elasticities: A Reassessment, *Opec Review* **9**, 163-185, 1985.

- [5] with Abodande Tunji, Optimal Production of Oil and Gas, *Engineering Costs and Production Economics* **9**, 105-111, 1985.
- [4] with Gerd Infanger, The Prospects of Energy Conservation: A Different Approach to the Fuel Demand for Space Heating, *Empirica* **2'85**, 227-245, 1985.
- [3] Are Oil Prices Going to Remain Volatile?, *Zeitschrift für Operations Research* **29**, B41-B63, 1985.
- [2] Sensitivity Analysis of Opec Pricing Policies, *Opec Review* **8**, Autumn 1984, 321-331, 1984.
- [1] with Abodande Tunji, Exhaustible Resources: Market Discrimination and Local Pricing, *Opec Review* **7**, 284-311, 1983.

1.3. Papers published in German, refereed journals

- [40] mit Matthias Pickl, Zahlungsbereitschaft von Stromkunden für Erneuerbare Energie – Eine Studie über die Wirksamkeit von kombinierten Choice-Experimenten und Public-Good-Experimenten, *Zeitschrift für Energiewirtschaft*, 2011.
- [39] Spieltheoretische Ansätze in der Öffentlichen Wirtschaft, *Zeitschrift öffentliche und gemeinwirtschaftliche Unternehmen* **28/3**, 250-266, 2005.
- [38] mit Michaela Hauer, Auswirkungen des Holländischen Gesetzes zur Förderung von Grünstrom auf die Auktionen zur Vergabe von Importkapazität, *Zeitschrift für Energiewirtschaft* **28**, 27-32, 2004.
- [37] Integration von Unternehmensbereichen bei privater Information über die Synergiegewinne, *Zeitschrift für Betriebswirtschaft* 73. Jg., 317-332, 2003.
- [36] mit Aria Rodgarkia-Dara, Auswirkungen der Liberalisierung des österreichischen Elektrizitätsmarkts, *Zeitschrift öffentliche und gemeinwirtschaftliche Unternehmen* Band 26, 34 – 54, 2003.
- [35] mit Jürgen Noll, Außergerichtliche Unternehmensinitiativen bei Umwelthaftung, *Journal für Betriebswirtschaft* 1/2003, 15-29.
- [34] mit Thomas Dangl, Was Dixit und Pindyck bei der Analyse von Managementproblemen unter Unsicherheit verschweigen an Hand des Beispiels der optimalen Wartung und Ausmusterung einer Maschine, *Zeitschrift für Betriebswirtschaft* **70**, 211 – 229, 2000.
- [33] mit Thomas Dangl, Sind hohe implizite Diskontraten ein Beleg für „Marktversagen“? Eine Rationalisierung am Beispiel der Wahl der Energieeffizienz mittels der Theorie „Investition bei Unsicherheit“, *VEÖ-Journal*, Heft 11, 48 - 53, 1999.
- [32] mit Thomas Dangl, Investition bei Unsicherheit als Erklärung für hohe implizite Diskontraten bei Energiesparinvestitionen, *OR-Spektrum* **20**, 259-267, 1999.
- [31] Probleme bei der Einführung von Energieabgaben, *VEÖ-Journal* **5/99**, 37 – 44, 1999.
- [30] Firmenübernahmen in der E-Wirtschaft: Was erkaufte man bei einer Übernahmen eines Versorgungsunternehmens in einem liberalisierten Strommarkt?, *Wirtschaftspolitische Blätter*, 46. Jg., 609 – 617, 1999.
- [29] Managementprobleme bedingt durch Umweltpolitik bei asymmetrischer Information, *Jahrbuch ökologische Ökonomik*, 349 – 374, 1999.

- [28] mit Gustav Feichtinger und Michael Kopel, Einfache Dynamische Werbestrategien im Kampf um Marktanteile, *Marketing, Zeitschrift für Forschung und Praxis* **19/4**, 221-231, 1997.
- [27] mit Wolfgang Orasch, Theoretische Probleme und kritische Evaluierung amerikanischer Energiesparprogramme, *Zeitschrift für Energiewirtschaftliche Tagesfragen* Heft 9 (September 1996), 566-571, 1996.
- [26] Einige empirische Befunde zur Entwicklung des Öffentlichen Dienstes in der Bundesrepublik, *Jahrbücher für Nationalökonomie und Statistik* **215/5**, 745-753, 1996.
- [25] Produktionsmanagement bei Umweltauflagen, *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung* **10**, 885-897, 1996.
- [24] mit A. Prskawetz und G. Feichtinger, A Nonlinear Model of Population Growth and Renewable Resources, *Chaotische Nachrichten* **31**, 16-21, 1994.
- [23] Einfluß von Umweltsteuern auf Produktionsstrategien, *Schmalenbachs Zeitschrift für betriebswirtschaftliche Forschung* **47**, 456-465, 1995.
- [22] Wirtschaftlichkeit nachfrageseitiger Energiesparmaßnahmen, *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen*, Band 18, Heft 1, 63-74, 1995.
- [21] mit Peter J. Jansen, Berechnungsmodelle für die Einschätzung von Stromsparinvestitionen im Stromsektor, *VEÖ-Journal* (1994).
- [20] Politische Krisen und ihre Auswirkungen auf den Weltölmarkt, *Zeitschrift für Energiewirtschaft* **17**, 168-171, 1993.
- [19] Popper, Buchanan und die Neue Politische Ökonomie, *Homo Oeconomicus* **X**, 203-218, 1993.
- [18] zusammen mit Elisabeth Szirucsek, Kritische Anmerkungen zu einer Energieabgabe, *Wirtschaftspolitische Blätter* **39**, 570-577, 1992.
- [17] Rentabilität von EVU-seitigen Energiesparprogrammen, *Betriebswirtschaftliche Forschung und Praxis* **4/1994**, 396-407.
- [16] mit Reinhard Haas, Verbraucherseitige Energiesparstrategien - ein analytischer Überblick, *Zeitschrift für Energiewirtschaft* **16**, 23-31, 1992.
- [15] Meinungsspiegel (zusammen mit W. Engels, F. Gieske, H. B. Schäfer), Ökonomische und ökologische Aspekte der Energieerzeugung, *Betriebswirtschaftliche Forschung und Praxis* **6/91**, 584-599, 1991.
- [14] Energiewirtschaftliche Begriffe in der neueren Regulierungsdebatte, *Zeitschrift öffentliche und gemeinwirtschaftliche Unternehmen* **14**, 378-390, 1991.
- [13] Quantifizierung wirtschaftlicher Auswirkungen umweltpolitischer Forderungen: Modell und empirische Anwendung am Beispiel der Bundesrepublik Deutschland, *Österreichische Zeitschrift für Statistik und Informatik* **21**, 147-168, 1991.
- [12] mit Erich Unterwurzacher, Wirtschaftliche und politische Neuordnung in Mitteleuropa: Auswirkungen auf die Energiemärkte und die Umweltsituation in Polen, der CSFR und Ungarn, *Zeitschrift für Energiewirtschaft* **15**, 167-175, 1991.
- [11] "Optimierung bei mehrfacher Zielsetzung": Eine Anwendung auf den Konflikt Umwelt-Ökonomie?, *Wirtschaftspolitische Blätter* **38**, 264-271, 1991.
- [10] Energiebedarf, Energiepreise und Umweltabgaben, *Österreichische Zeitschrift für Elektrizitätswirtschaft* **44**, 1-6, 1991.

- [9] mit Hannes Pfeiffenberger, Ein ökonomische Analyse unterschiedlicher Kraftwerkstypen, *Quartalshefte I-II/90*, 21-29, 1990.
- [8] Wie effizient sind die offiziellen Energieprognosen? *Österreichische Zeitschrift für Elektrizitätswirtschaft* **43**, 37-40, 1990.
- [7] Energiesparen 1973-1985: Eine empirische Untersuchung für Österreich, *Wirtschaft und Gesellschaft* **15**, 585-593, 1989.
- [6] Irreversible technische Verbesserungen als Erklärung für Asymmetrie des Energiebedarfs: eine empirische Anwendung auf Österreich, *Zeitschrift für Energiewirtschaft* **13**, 303-308, 1989.
- [5] mit Pumberger Roland, Strategische Versorgungssicherheit: ein quantitativer Ansatz für die optimale Energieversorgung eines Landes, *Erdöl-Erdgas-Kohle*, Heft 1, 5-6, 1989.
- [4] Möglichkeiten einer Reorganisation der Elektrizitätsversorgung im Überblick, *Zeitschrift öffentliche und gemeinwirtschaftliche Unternehmen* **12**, 346-356, 1989.
- [4] Effizienz von Umweltinstrumenten in imperfekten Märkten, *Quartalshefte*, **II-III/88**, 61-66, 1988.
- [3] Ansätze für sozial optimale Tarife bei öffentlichen Firmen, *Österreichische Zeitschrift für Elektrizitätswirtschaft* **41**, 183-191, 1988.
- [2] Effiziente öffentliche Unternehmen: Theorie und Anwendung, *Wirtschaftspolitische Blätter* **35**, 396-407, 1988.
- [1] Mehr (Markt-) Ökonomie in der Energiedebatte. Eine Bestandsaufnahme der öffentlichen Energiepolitik am Beispiel Österreich, *Wirtschaftspolitische Blätter* **34**, 439-454, 1987.

1.4. Papers published in refereed proceedings and books

- [22] with Yuri Yegorov, Dieter Grass, and Andrea Seidl, Economics of Talent: Dynamics and Multiplicity of Equilibria in *Dynamic Perspectives on Managerial Decision Making*, 36-61, 2016.
- [21] Uniqueness versus Indeterminacy in the Tragedy of the Commons - A 'Geometric' Approach, in Elke Moser, Willi Semmler, Gernot Tragler, Vladimir Veliov, (eds), *Dynamic Optimization in Environmental Economics*, 169-192, 2013.
- [20] Yegorov Y., Wirl F. (2012) Future of Russian Gas and Its Energy Relations with the EU between now and 2020. – In: Ed. A.Develi, S. Kaynak, eds. *Energy Economics*. - Peter Lang GmbH (ISBN 978-3-631-63333-5); p.65-81.
- [19] with Yuri Yegorov, Renewable Energy - Models, Implications and Prospects, in: *The [Oxford] Handbook of the Macroeconomics of Climate Change*, edited by Willi Semmler and Lucas Bernard, Oxford Handbooks, 2014.
- [18] with Nathalie Glück and Christian Redl, Cross-border auctions in Europe: Auction prices versus price differences, IEEE, 2009, http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?reload=true&arnumber=5207206 .
- [17] Mathematical Models of Environmental Economics, chapter in the peer reviewed *Encyclopedia of Life Support Systems* (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers, Oxford, UK, <http://www.eolss.net>.

- [16] with Petra Amrusch, The Impact of Energy Prices on the Sustainability of Urban Transport (Proceeding of 12th Int. Conference on Urban Transport and the Environment 2006).
- [15] with Christophe Deissenberg, Gustav Feichtinger and Willi Semmler, Multiple Equilibria, History Dependency, and Global Dynamics in Intertemporal Optimization Models, in William A. Barnett (ed.), *Economic Complexity: Non-Linear Dynamics, Multi-agents Economies, and Learning*, 91-122, North Holland, Amsterdam, 2004.
- [14] Numerical Limitations of the real option approach, in Katrin Ostertag, Patrick Ilerene and Alban Richard (eds.), *Option Valuation for Energy Issues*, 87-98, Fraunhofer IBR-Verlag, 2004.
- [13] with G. Feichtinger, H. Dawid and A. Novak, Indeterminacy of Open-Loop Nash Equilibria: The Ruling Class versus the Tabloid Press, in H. G. Natke and Yakov Ben-Haim, *Uncertainty: Models and Measures*, 124- 136, Akademie Verlag, 1997.
- [12] On the Economic Efficiency of Energy Conservation Programs, *Operations Research Proceedings 1996*, 427-432, Springer Verlag, 1997.
- [11] Asymmetric Information: Consequences for DSM Practice, *Proceedings, IAEE 19th Annual Conference*, 524-533, Budapest, 1996.
- [10] with A. Prskawetz and G. Feichtinger, Nonlinear Models in Population Economics, *Proceedings of the IMACS Symposium on Mathematical Modelling*, February 2-4, Technical University of Vienna, Austria, Volume 5, 812-815, 1994.
- [9] Limitations of Quadratic Penalties for Policy Analysis: The Example of an Oil Import Fee, in G. Feichtinger (ed.), *Dynamic Economic Models and Optimal Control*, North Holland, 205-221, 1992.
- [8] with Gerhard Hanappi, The Restructuring of CMEA-Countries and the Impact on World Energy Markets: An Empirical Assessment up to 1995, *Methods of Operations Research* **63**, 1990.
- [7] Taxation of Refined Products. An Economic Rationale for Kreuzer's Kreuzer, *Methods of Operations Research* **62**, 431-443, 1989.
- [6] with Unterwurzacher Erich, Transaction Costs and their Impact on Energy Demand Behaviour, in T. R. Gullledge and L. A. Litteral (ed.), *Cost Analysis Applications of Economics & Operations Research*, Lecture Notes in Economics and Mathematical Systems, 332, 130-141, Springer Verlag, 1989.
- [5] with Jansen Peter, Public Decisions under Multiple Objectives, *Methods of Operations Research* **58**, 249-258, 1989.
- [4] with Infanger Gerd, Impacts of a Nuclear Power Moratorium in the FRG, *Methods of Operations Research* **58**, 543-554, 1989.
- [3] Resource Extraction: Imperfect vs. Perfect Substitutes, *Operations Research Proceedings 1987*, 556-563, Springer Verlag, 1988.
- [2] Marketing D.P. Software: The Threat from Piracy, in Demschke-Krabs-Lehn-Spellucci (Hrsg.), *Methods of Operations Research* **57**, 451-461, 1987.
- [1] Stable and Volatile Prices: An Explanation by Dynamic Demand, in G. Feichtinger (ed.), *Optimal Control Theory and Economic Analysis 2*, 263-277, North Holland, 1985.

1.5. Other Publications

- [28] with Yuri Yegorov, European Gas Supply Security and Geopolitics, *IAEE Energy Forum* Spring 2015, 33-37.
- [27] with Petra Amrusch, Does The Environment Matter On The Wine Market: An Analysis Of The Wine Market In Austria, Wit Press, *Wit-transactions-on-ecology-and-the-environment*, <http://www.witpress.com/elibrary/wit-transactions-on-ecology-and-the-environment/175/24763>, 2013.
- [26] with Yegorov Y., (2012), Sind die Bedenken der EU bezüglich russischer Gasimporte rational? *Energiewirtschaftliche Tagesfragen* 62, Heft 9, 46-47.
- [25] mit Udo Brändle, Corporate Governance Normen – Wege aus der Krise? *WiSt* 7/04, 906-910, 2004.
- [24] Elektrizitätswirtschaft: Probleme der öffentlichen Wirtschaft versus Probleme einer liberalisierten und privatisierten Organisationsform, in *Daseinsvorsorge: Weniger Staat – mehr Markt*, 2003.
- [23] Are Stars Worth Their Pay?, in Günther Fandel, Uschi Backes-Gellner, M. Schlüter and J.E. Staufenbiel (eds.), *Modern Concepts of the Theory of the Firm*, Springer - Physica, 505-519, 2003.
- [22] Pollution Charges and Incentives, in Christoph Böhringer and Andreas Löschel (eds.), *Empirical Modeling of the Economy and the Environment* (Festschrift für Claus Conrad, ZEW Economic Studies 20), 117- 132, Physica, 2003.
- [21] Wage Bargaining and Incentive Compatibility: Is Unemployment Optimal After All?, in Engelbert Dockner, Richard F. Hartl, Mikulas Luptacik und Gerhard Sorger (eds.), *Optimization, Dynamics, and Economic Analysis, Essays in Honor of Gustav Feichtinger*, 200-213, Physica Verlag, 2000.
- [20] mit I.O. Walker, On the Efficiency and Effectiveness of JI in Stabilizing CO2 Emissions, *OPEC Bulletin*, November/December 1994, 16-19;63, 1994.
- [19] Quantitative Modelling in the Presence of Structural Breaks: Assessing the Energy Demand-Supply for the Sovietunion up to 1995, in Thomas Url und Andreas Wörgötter (eds.), *The Econometrics of Short and Unreliable Time Series: Modelling Eastern European Transition*, 217-236, Physica, Heidelberg, 1995.
- [18] Neue Politische Ökonomie - Einige Anwendungen auf energiewirtschaftliche Fragestellungen, *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 4, 13-21, 1994.
- [17] Ökonomische Grundlagen von Energiesparstrategien und Least-Cost-Planning, *Workshop: CO2-Reduktion in Zusammenarbeit mit kommunalen Elektrizitätsversorgungsunternehmen*, Österreichisches Ökologieinstitut, 21-23, 1994.
- [16] mit Elisabeth Szirucsek, Energiesteuern Pro und Kontra, *A3-Umwelt* 8-9/93, 1993.

- [15] Kommentare zu Peter Jörg Jansen, "Chancen der Umweltverträglichkeitsprüfung für transparente, demokratische Entscheidungsfindung", *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 3, 19-21, 1992.
- [14] mit Reinhard Haas, Die Effizienz verbraucherseitiger Energiesparprogramme von Elektrizitätsversorgungsunternehmen, *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 3, 43-48, 1992.
- [13] mit Peter J. Jansen, Der gemeinsame Markt und die Elektrizitätswirtschaft in Österreich, *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 3, 49-50, 1992.
- [12] mit Peter J. Jansen, Unsichere Energiemärkte. Politik-Ökonomische Betrachtung zur Öffnung Osteuropas, *ÖMV Forum* 7/1991, 36-37, 1991.
- [11] mit P. J. Jansen, Rahmenbedingungen für Investitionen in "N"egawatts, *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 1, 15-20, Dezember 1990.
- [10] mit G. Baier und P. Jansen, Zentrale oder dezentrale Kraftwerkseinsatzplanung?, *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 1, 6-14, Dezember 1990.
- [9] Politische Krisen und ihre Auswirkungen auf den Weltölmarkt, *VIEW* (Viewpoint Institut für Energiewirtschaft) Heft 2, 18-24, März 1991.
- [8] mit Pumberger Roland, Versorgungssicherheit: ein quantitativer Ansatz, in E. Steinbach-Gröbl (Hrsg.), *Licht und Schatten*, 149-161, Böhler Verlag, 1990.
- [7] mit Peter J. Jansen und Roland Pumberger, Ein Ansatz zur lufthygienischen Bewertung von Heizungssystemen, in Peter J. Jansen (Hrsg.), *Bewertung verschiedener Heizsysteme*, Band 2, 1-38, Wien, Metrica, 1988.
- [6] mit Helmut Knötig, Meßwerte zu den Hauptergebnissen, in M. Haider, P. Jansen, A. Kafka-Lützwow, H. Knötig und E. Panzhauser, Vorzugstemperatur und IR-Reflexion von Bauteilinnenflächen, *Archivum Oecologiae Hominis*, A3-A24, 1987.
- [5] mit Peter J. Jansen und Roland Pumberger, Ein Ansatz zur lufthygienischen Bewertung von Heizungssystemen, in: Institut für Energiewirtschaft und Verband der Elektrizitätswerke Österreichs (Hrsg.), *Energiewirtschaft im Wandel*, Wien Metrica, 171-184, 1987.
- [4] Kritische Betrachtungen zur österreichischen Energie- und Umweltpolitik, in Raimund Dietz, Karlheinz Mack, (Hrsg.), *Energie, Umwelt und Zusammenarbeit in Europa*, 97-110, Springer Verlag, Wien, 1987.
- [3] mit Jansen Peter und Pumberger Roland, Ein Modell zur Bewertung und Internalisierung von Schadstoffbelastungen, in Rolf Kappel (Hrsg.), *Im Spannungsfeld von Wirtschaft, Technik und Politik, Festschrift für Bruno Fritsch*, 167-199, Günther Olzog Verlag, München, 1986.
- [2] Wettbewerb der Energieträger auf dem Raumwärmemarkt nach dem Ölpreisverfall, *Heizung-Lüftung-Klima* 6A/1986, 405-408, 1986.
- [1] Energiekonzept für Österreich - kritische Bemerkungen, *Gesellschaft und Politik* 4/84, 1984.

1.6. Book Reviews

Siebert H., *Die Theorie natürlicher Ressourcen*, Tübingen: J. C. B. Mohr, 1983, *Journal of Economics (ZfN)* **44**, 302-305, 1984.

Golombek R., M. Hoel and J. Vislie (editors), *Natural Gas Markets and Contracts*, North Holland, 1987, *Journal of Economics (ZfN)* **48**, 215-218, 1988.

F. van der Ploeg and A. J. Zeeuw, *Dynamic Policy Games in Economics*, North Holland, *European Journal of Political Economy* **6**, 143- 146, 1990.

Gerhart Bruckmann und Peter Fleissner, *Am Steuerrad der Wirtschaft*, Springer Verlag 1989, Wien-New York, *ÖGOR News*, Dezember 1990, 18-19.

zusammen mit Leopold Bauer, R. Gruber, J. Periaux und R. P. Shaw, *Proceedings of the Fifth International Symposium on Numerical Methods in Engineering*, *ÖZE* **108. Jg**, 71, 1991.

Kora Kristof, *Dezentralisierung in der Elektrizitätswirtschaft*, Campus Verlag 1992, Frankfurt/New York, *Wirtschaft und Gesellschaft*, 1992.

mit Charlotte Wirl, Adolf Stepan (Hgb.), *Finanzierungssysteme im Gesundheitsbereich: Ein internationaler Vergleich*, für die *Österr. Ärztezeitung*, 12/25. Juni, S53, 1998.

Johannes Heister, *Der internationale CO₂-Vertrag*, *Zeitschrift für Wirtschafts- und Sozialwissenschaften* **119**, 156 – 158, 1998.

Ulf Klostermann, *Controlling zur Unterstützung von Least-Cost-Planning im Elektrizitätsunternehmen*, Peter Lang, Frankfurt a. Main, Berlin, Bern, New York, Paris, Wien, 1998, *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen* **22**, 222 - 224, 1999.

Constanze Kreis, *Deregulierung und Liberalisierung der europäischen Elektrizitätswirtschaft, Theoretische und empirische Befunde*, Nomos Verlagsgesellschaft, Baden-Baden, 2004, *Zeitschrift für öffentliche und gemeinwirtschaftliche Unternehmen*, 2005.

Sustainable Energy in Developing Countries: Policy Analysis and Case Studies by Peter Meier and Mohan Munasinghe. (Edward Elgar, 2005), 283 pages, ISBN 1-84376-753-8, *The Energy Journal* 27/3, 174-176, 2006.

1.7. Interviews, Newspapers and Online

Wirl: „Mineralölsteuer müsste erhöht werden“ *Die Presse* vom 18.07.2008

"Der Mensch ist eine Ratte", *Kurier* 6.1.2009.

Franz Wirl: Der doch nur forschen will, *Handelsblatt*, 1.7.2009

With Yuri Yegorov, ARE THE EU'S CONCERNS ABOUT GAS IMPORTS FROM RUSSIA RATIONAL? <http://www.energyobserver.com/tekst-e.php?lang=2&ID=1867>, May 2012.

With Yuri Yegorov, Sú obavy EÚ z dodávok ruského plynu opodstatnené? <http://www.energia.sk/redakcny-komentar/zemny-plyn/jurij-jegorov-franz-wirl-su-obavy-eu-z-dodavok-ruskeho-plynu-opodstatnene/6906/>, May 2012.

3. Presentations

3.1. *At academic conferences and academic institutions*

- [141] White Certificates - Energy Efficiency Programs Under Private Information of Consumers, 38th IAEE International Conference, "Economic, Environmental, Technological and Security Challenges for Energy." May 25-27, 2017, Antalya, Turkey
- [140] Economics of Talent: Dynamics and Multiplicity of Equilibria, 13th Viennese Workshop on Optimal Control and Dynamic Games, Vienna, May 13-16, 2015.
- [139] Wholesale versus Retail Pricing with Downstream Firms ('Amazon' and 'Apple') that Add Value and have First Mover Advantage, invited by the ZEW, Mannheim, March. 19th, 2015.
- [138] Multilateral externalities: Contracts with private information either about costs or benefit, University of Valencia, Oct. 8th, 2014.
- [137] Output Adjusting Cartels Facing Dynamic, Convex Demand under Uncertainty: The Case of OPEC, World Congress Int. Assoc. of Energy Economists, June 16th-18th 2014, New York.
- [136] Spreads in International Natural Gas Prices – Explanations and Analysis of Intertemporal Market Equilibrium under (Political) Uncertainty, World Congress Int. Assoc. of Energy Economists, June 16th-18th 2014, New York.
- [135] Myths of Conservation (Programs) invited to the Workshop The Energy Efficiency Gap: Reasons and Implications, March 12-13, 2014, at ZEW in Mannheim.
- [134] Thresholds, Limit Cycles, and Indeterminacy in Competitive Economies with a Dynamic Externality, invited to Workshop, Renewable resources, Sustainability, and Search, Heidelberg 12.-14.12.2013.
- [133] Myths of Conservation (Programs), invited by IFP-Energies nouvelles, Paris, December 8th, 2013.
- [132] LNG – Arbitrage: An Anomaly? Potential Explanations focusing on (Political) Uncertainty, Energy and Mathematical Optimization, BASF, April 15th, 2013.
- [131] Treibhausproblematik & Erneuerbare Energie – Wunsch versus Ökonomie, Symposium „Langfristige Beschäftigungssicherung in Österreich: Arbeitsentlohnung und Umwelterhaltung“ Öst. Akademie der Wissenschaften, 19. Dez. 2012.
- [130] Taxes versus permits as incentive for the intertemporal supply of a clean technology by a monopoly, SURED, Ascona, June 4th-7th, 2012.
- [129] Competitive Equilibria as the Limit of Differential Games, 12th Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics, Technical University of Vienna, May 30th – June 2nd, 2012
- [128] Renewable Energy: Models, Implications and Prospects, GOR-Arbeitsgruppe Praxis der MATHEMATISCHEN OPTIMIERUNG Herausforderungen der energiewirtschaftlichen Optimierung, Einladung der EnBW, Karlsruhe, 19.-20. April 2012

- [127] Economic Growth, Pollution vs Thresholds or Indeterminacy, Workshop "Economic Growth and the Environment" IWM, TU Wien, Dec. 8th, 2011.
- [126] International Environmental Agreements: Incentive Contracts with Multilateral Externalities, CER-ETH Economics Research Seminar (invited), Nov. 14th, 2011.
- [125] Prices vs Quantities Strategic and Intertemporal Considerations, EAERE Conference, Rome Tor Vergata, July 1st, 2011.
- [124] Prices vs Quantities Strategic and Intertemporal Considerations, Sustainable Growth, technological progress, and the environment, May 19-20, 2011, Institut de Recherches Economiques et Sociales, (IRES & CORE, UCLouvain & GREMAQ).
- [123] Prices vs Quantities Strategic and Intertemporal Considerations, Aktuelle Fragen zur Regulierung von Energie- und Telekommunikationsmärkten, WU-Wien, Regulierungsinstitut, 14. Jänner 2011.
- [121] Rationalizations of Oil Price Volatility, WU-Executive Academy, January 11th 2011.
- [120] Optimal Pricing of Nondurables when Demand is Dynamic and Stochastic, **Computational Management Science** 2010 von 28. - 30. Juli, 2010, Vienna.
- [119] International Environmental Agreements: Incentive Contracts with Multilateral Externalities, **Fourth World Congress of Environmental and Resource Economists**, June 28 to July 2, 2010, Montreal, Canada.
- [118] Global Warming and Heterogeneous (Green and Brown) Consumers, invitation *Université Toulouse*, TSE(LERNA, INRA), May 17th, 2010.
- [117] Renewable Energy: Models, Implications and Prospects, **The Economics and Politics of Climate Change**, invited by *The New School in New York City*, April 9-10, 2010.
- [116] International Environmental Agreements: Incentive Contracts with Multilateral Externalities at *Pontificia Universidad Católica de Chile* Instituto de Economía - Facultad de Ciencias Económicas y Administrativas, November 27th 2009.
- [115] Rationalizations of Oil Price Volatility, *EastWestCenter Honolulu*, September 1st 2009.
- [114] Oligopoly meets Oligopsony: The Case of Permits, **Seventeenth Annual Conference of EAERE 2009**, Amsterdam June 25th – 27th, 2009
- [113] Erklärungsversuche für die Volatilität der Ölpreise, 6. Einladung zu einem Plenarvortrag anlässlich der 6. Int. Energiewirtschaftstagung an der TU Wien, 11. Februar 2009.
- [113] Real Options – Applications to Energy Markets, invited lecture, *ZEW*, Mannheim, Oct. 27th – 28th, 2008.
- [112] Oil Price Volatility: Reasons and Regulatory Implications, Forschungsseminar zur Regulierung von Netzwerkindustrien an der *Wirtschaftsuniversität Wien* am 25. Juni 2008.
- [111] Modelle - stochastisch und polito-ökonomisch zur Ölpreisvolatilität, 23. Juni 2008, *TU Wien*.

- [110] History Dependence - Thresholds, invited by the *University of Trondheim*, May 9th, 2008.
- [109] Rationalizations of Oil Price Volatility, invited by the the *University of Trondheim*, May 8th, 2008.
- [108] Instability and Growth due to (Adjustment) Costs, invitation of the *University of Bratislava*, April 9th, 2008.
- [107] Energienachfrage, Einladung der *University of Natural Resources and Applied Life Sciences*, 28. Jänner 2008.
- [106] Why Do Oil Prices Jump (and Fall)?, Invitation, *Jacobs University Bremen*, January 18th, 2008.
- [105] Instability and Growth due to (Adjustment) Costs, October 30th, 2007, Technical University of Vienna.
- [104] Do Multiple Nash Equilibria in Markov Strategies Mitigate the Tragedy of the Commons? **Fifteenth Annual Conference of EAERE 2007**, Thesaloniki June 27th – 30th, 2007.
- [103] Happiness due to Consumption and its Increases, Wealth and Status, January 17th 2007, *Technical University of Vienna*.
- [102] Why Do Oil Prices Jump (and Fall)?, **29th International IAEE Conference**, Potsdam, June 7 -10, 2006.
- [101] Regulation: Approaches and Experiences in the Power Industry, *Wirtschaftsuniversität Wien*, 3. März 2006.
- [100] Real Options: Applications & Extensions to Environmental and Resource Problems, *Mathematische Ökonomie und Optimierung in der Energiewirtschaft*, Wien am 22. 9. 2005, IHS.
- [99] Consequences of Irreversibilities on Optimal Intertemporal CO₂ Emission Policies under Uncertainty, **7th IAEE European Energy Conference**, Bergen, Norway, August 28-30, 2005.
- [98] Noncooperative investment in partnerships and their termination, **9th Annual Conference on Real Options, Theory Meets Practice**, Paris, June 22nd – 25th, 2005.
- [97] Real Options: Applications and Extensions to Environmental Problems, Invitation at the **University of Technology Sydney (UTS)**, October 12th, 2004.
- [96] Thresholds in Concave Renewable Resource Models, **Thirteenth Annual Conference of EAERE 2004**, Budapest, 25-28th June 2004.
- [95] Tragedy of the Commons in a Stochastic Dynamic Game of a Stock Externality, **Workshop on Economic Dynamics**, University of Bolzano, October 10-12, 2003.
- [94] Thresholds in Concave Renewable Resource Models, Workshop on **Population and Environment**, *Max Planck Institut Rostock*, 5. – 6. September 2003.

- [93] Strategic Energy Pricing and Carbon Taxing under Uncertainty about Global Warming, **26th IAEE International Conference**, “New Challenges for Energy Decision Makers”, Prague, June 4-7, 2003.
- [92] Markov Strategies, Patching, Inada Conditions: Uniqueness and Indeterminacy, **Eighth Viennese Workshop on Optimal Control, Dynamic Games and Nonlinear Dynamics: Theory and Applications in Economics and OR/MS**, Vienna, May 14th – 16th, 2003.
- [91] Elektrizitätswirtschaft: Ökonomische Grundlagen, **Daseinsvorsorge – Weniger Staat, mehr Markt?**, Research Institute for European Affairs, Wr. Rathaus, 31.3 – 1.4. 2003.
- [90] Realloptionen und Energiesparen, Workshop *Option Value in Energy and Environmental Issues*, Fraunhoferinstitut, Karlsruhe, am 11. Februar 2003.
- [89] Are Stars Worth Their Pay? **Managing Enterprises of the New Economy by Modern Concepts of the Theory of the Firm**, Einladung der *Erich-Gutenberg-Arbeitsgemeinschaft*, Hagen, 12. – 14. Dezember 2002.
- [88] Inter-divisional Contracts, Kolloquium der Volks- und Betriebswirte an der *Universität Wien*, 3. Dezember 2002.
- [87] Inter-divisional Contracts, *Wirtschafts- und Sozialwissenschaftliche Fakultät der Universität zu Köln*, 13. Mai 2002.
- [86] Indeterminacy, History Dependence, and Limit Cycles in a Competitive Economy with Dynamic Spillovers, *TU-Wien*, 19. März 2002.
- [85^a] Inter-divisional Contracts, **5th Annual Conference of the European Network on Industrial Policy**, Wien, 29. November – 1. Dezember 2001.
- [84^a] Tragedy of the Commons in a Stochastic Dynamic Game of a Stock Externality, **Eleventh Annual Conference of the European Association of Environmental and Resource Economists EAERE 2001**, Southampton, June 28th – 30th, 2001.
- [83] Environmental Policies under Private Information, Workshop on "**Empirical Modeling of the Economy and Environment**", *Centre for European Economic Research (ZEW)* at Mannheim, June 26th – 27th, 2001.
- [82] Tragedy of the Commons: Stochastics, **2nd Workshop on Population and Environment**, *Max Planck Institut Rostock*, May 18 – 19, 2001.
- [81] Vertikale Integration von Versorgungsunternehmen, Einladung der Fakultät für Elektrotechnik an der *Technischen Universität Wien*, 22. Jänner 2001,
- [80^a] Strict Liability (Polluter Pays Principle) Versus Injunctions under Asymmetric Information, **Tenth Annual Conference of the European Association of Environmental and Resource Economists EAERE 2000**, Rethymnon, 30. Juni – 2. Juli 2000.
- [79^a] History Dependence in Concave Economies, **Seventh Viennese Workshop on Optimal**

Control, Dynamic Games, Nonlinear Dynamics and Adaptive Systems, Vienna, May, 24th – 27th, 2000.

- [78^a] Socially optimal introduction of a clean backstop technology when capacity expands sluggishly, **European Economic Association**, Santiago di Compostella, 2. Sept. – 4. Sept., 1999.
- [77^a] Dynamic Externalities and Adjustments: Stability and Limit Cycles of Competitive Equilibria with an Application to Backstops, **Econometric Society, European Meeting**, Santiago di Compostella, 28. Aug. – 1. Sept., 1999.
- [76] Stochastische, irreversible Stockexternalitäten, Einladung der **Universität-Gesamthochschule Essen**, 8. Juni 1999.
- [75^b] The Consequences of Uncertainty and of Irreversibility on Optimal Intertemporal CO₂ Emission Policies, **Ausschuß für Umwelt und Ressourcenökonomie**, Universität Innsbruck 23. –24. April, 1999.
- [74] Energiesparprogramme, Einladung der **Christian-Albrechts-Universität zu Kiel**, 14. April 1999.
- [73^b] Was erhält man bei einer Übernahme eines EVUs in einem liberalisierten Strommarkt?, **1. Wr. Energiewirtschaftstagung**, 24. - 26. Februar 1999, TU-Wien.
- [72] Verursacherprinzip und Haftungen oder Verbote bei asymmetrischer Information, Einladung der **Wirtschaftsuniversität Wien**, 11. Dezember 1998.
- [71] Beispiele industriellen Managements von umweltpolitisch bedingten Problemen, Einladung der **Universität Wien**, 27. November 1998.
- [70^a] mit Cees Withagen, Optimal introduction of a clean backstop technology when capacity expands sluggishly, **First World Congress of Environmental and Resource Economists**, Venice, June 25th-27th, 1998.
- [69^a] mit Claus Huber, Optimal Voluntary Internalisations when Governments Threaten to Introduce a Pollution Tax, **First World Congress of of Environmental and Resource Economists**, Venice, June 25th-27th, 1998.
- [68] Effizienz von Energiesparprogrammen von Elektrizitätsversorgungsunternehmen, Einladung der **Ruhr-Universität Bochum**, 14. April 1998.
- [67] Effizienz von Energiesparprogrammen, Einladung der **ETH Zürich**, 23. März 1998.
- [66^a] Dynamic Externalities: Comparing Conditions for Hopf Bifurcations under Laissez Faire and Planning, **Atlantic Economic Society Meeting**, Rome, March 15th -20th, 1998.

- [65] Energiesparprogramme von Elektrizitätsversorgungsunternehmen, Einladung der **Universität Klagenfurt**, 13. Dezember 1997.
- [64] Übertragung der Verfügungsrechte an den Geschädigten mittels dem Verursacherprinzip oder Verboten bei asymmetrischer Information, Einladung der **Universität Zürich**, 11. Dezember 1997.
- [63] Entitling the Polluttee: Polluter Pays Principle and Injunctions under Asymmetric Information, Wirtschaftswissenschaftliches Kolloquium, Wien, **IHS**, 20. November 1997.
- [62^b] Optimale Energiesparanreize, **Jahrestagung des Vereins für Socialpolitik**, Bern, 23. - 26. September 1997.
- [61^a] De- and Reforestation: Stability, Instability and Limit Cycles, **Eighth Annual Conference, The European Association of Environmental and Resource Economists**, Tilburg, June 26th-28th, 1997.
- [60^a] mit Claus Huber, The Polluter Pays Principle versus the Pollutee Pays Principle under Asymmetric Information, **Eighth Annual Conference, The European Association of Environmental and Resource Economists**, Tilburg, June 26th-28th, 1997.
- [59] Produktionsmanagement bei Umweltauflagen, Einladung der **Karl-Franzens Universität Graz**, 16. Juni 1997.
- [58^b] Voluntary Approaches to Pigovian Externalities under Asymmetric Information, **Nationalökonomische Gesellschaft, Jahrestagung 1997**, Innsbruck 5. - 6. Juni 1997.
- [57^a] Dynamic Externalities: Comparing Limit Cycles under Laissez Faire and Planning, February 1997, **6th Viennese Workshop on Optimal Control, Dynamic Games, Nonlinear Dynamics and Adaptive Systems**, Vienna, May 21st - 23rd, 1997.
- [56^a] Conservation Incentives for Consumers, **23rd E.A.R.I.E. Conference**, Vienna, September 7th-10th, 1996.
- [55] **Plenarvortrag**, On the Economic Efficiency of Energy Conservation Programs, **SOR 96 Tagung**, Braunschweig, 4. - 6. September 1996.
- [54] Strategic Reactions to Utility Conservation Programs and Analysis of the United States' Experience, eingeladen, **Stanford University**, Department of Operations Research, Departmental Colloquium, Palo Alto, July 24 th, 1996.
- [53^a] Joint Implementation: Cheating and Possible Remedies, **Seventh Annual Conference, The European Association of Environmental and Resource Economists**, Lisbon, June 27th-30th, 1996.
- [52^a] Analysis of United States' Utility Conservation Programs with Special Emphasis on Asymmetric Information, **19th Annual Conference of the International Association of Energy Economics**, Budapest, May 27-30th, 1996.

- [51^a] Socio-Economic Typologies of Bureaucratic Corruption and Implications, **European Public Choice Society Annual Meeting**, Bar-Ilan University, Tiberias, Israel, March, 10th - 13th, 1996.
- [50] Pathways to Hopf Bifurcations, **Kolloquium** der *Otto-von-Guericke Universität Magdeburg*, November 1995.
- [49^a] Optimal Conservation Incentive Schemes for Consumers, **Sixth Annual Conference on Environmental & Resource Economics**, University of Umea, Sweden, June 17th - 20th, 1995.
- [48^a] mit Claus Huber, Optimal Incentives to Reduce Transboundary Emissions: Theory and Empirical Application to Austria versus Czechoslovakia, **Sixth Annual Conference on Environmental & Resource Economics**, University of Umea, Sweden, June 17 - 20th, 1995.
- [47] Strategische Aspekte bei Pigousteuern. Einladung an die Hochschule St. Gallen, 13. Juni 1994.
- [46^b] Sind Energiesparmaßnahmen von Versorgungsunternehmen wirtschaftlich?, **Ausschuß für Umwelt- und Ressourcenökonomie**, Ladenburg bei Mannheim, 39-30. April 1994.
- [45^a] Leviathan governments and carbon taxes, **Annual Meeting of the European Public Choice Society**, Valencia, April 6th-9th, 1994.
- [44] Produktionsmanagement bei Umweltauflagen, Einladung des Betriebswirtschaftlichen Zentrums der Universität Wien, 24. März 1994.
- [43] Strategische Aspekte bei CO₂-Abgaben, **NÖG-Seminar**, IHS, 10. März 1994.
- [42] Wirtschaftlichkeit EVU-seitiger Energiesparmaßnahmen, Einladung der Otto-von-Guericke Universität Magdeburg, 17. November 1993.
- [41^a] Leviathan Governments and Carbon Taxes: Costs and Potential Benefits, **Econometric Society European Meeting 1993**, Uppsala, August 22 - 26, 1993.
- [40^a] Cleanup follows pollution and so on, **The European Association of Environmental and Resource Economists Fourth Conference**, Fontainebleau, June 30 - July 3, 1993.
- [39^a] mit I. O. Walker, Asymmetric Energy Demand Due to Endogenous Efficiencies: An Empirical Investigation of the Transport Sector, **International Energy Workshop**, IIASA, Laxenburg, June 22 - 24, 1993.
- [38] Ökonomische Grundlagen des Energiesparens, Institut für Höhere Studien, 3. Juni 1993.
- [37] Rentabilität nachfrageseitiger Energiesparmaßnahmen, Einladung der Universität Halle, 15. März 1993.
- [36] Energieabgaben und strategisches Verhalten der Produzenten, Carl von Ossietzky Universität Oldenburg, 12. Jänner 1993.

- [35] Analyse nachfrageseitiger Energiesparmaßnahmen, Carl von Ossietzky Universität Oldenburg, 11. Jänner 1993.
- [34] Optimale Produktion und Lagerhaltung bei Umweltauflagen, Einladung der Carl-von-Ossietzky Universität Oldenburg, 10. Dezember 1992
- [33^a] CO₂ Emission Taxes: Energy Producers versus Consumers, **5th International Symposium on Dynamic Games and Applications**, Grimentz (Switzerland), July 15-17, 1992.
- [32^b] The Dynamics of Lobbying - A Differential Game, **Österreichische Nationalökonomische Gesellschaft, Jahrestagung**, 24. Juni 1992.
- [31^b] Energieabgaben - Eine kritische Betrachtung, **Umwelt- und Ressourcenökonomie im Verein für Sozialpolitik**, Mannheim-Ladenburg, 30. April - 1. Mai, 1992.
- [30] Unternehmensstrategien bei Umweltauflagen, Einladung der Universität Wien, 24. Jänner 1992.
- [29^a] Limit Cycles in Intertemporal Adjustment Models - Theory and Applications, **European Meeting of the Econometric Society**, Cambridge (U.K.), September 2-6, 1991.
- [28^a] Complex, Dynamic Environmental Policies, **Sixth Annual Congress European Economic Association**, Cambridge (U.K.), August 31 - September 2, 1991.
- [27^a] Cyclical Strategies in Two-Dimensional Optimal Control Models: Necessary Conditions for and Existence of Hopf Bifurcations, **1991 Conference of the Society for Economic Dynamics and Control**, Anacapri, June, 18-20, 1991.
- [26] Assessing the Energy Demand-Supply Situation in Eastern Europe: Modelling in the Presence of Structural Breaks and either Unreliable or Missing or Irrelevant Data, **The Econometrics of Short and Unreliable Time Series**, June 14-15, Vienna, Institut für Höhere Studien.
- [25^a] Limitations of Quadratic Penalties for Policy Analysis: The Example of an Oil Import Fee, **Fourth Workshop on Dynamic Economic Models and Optimal Control**, Vienna, June 12-14, 1991.
- [24] Energiewirtschaftliche Grundlagen eines Energieberichtes bei niedrigen Energiepreisen und Umweltproblemen, **Institut für Höhere Studien**, 18. September 1990.
- [23^a] mit Gustav Feichtinger, Politico-Economic Cycles of Regulation and Deregulation, **Operations Research 1990**, Wien, August 28-31, 1990.
- [22^a] mit Gerhard Hanappi, The Restructuring of CMEA Countries & the Impact on World Energy Markets: An Empirical Assessment up to 1995, **Operations Research 1990**, Wien, August 28-31, 1990.

- [21^a] Taxation of Energy Carriers Externalities, Security of Supply and Public Finance, **Operations Research 1990**, Wien, August 28-31, 1990.
- [20^a] Phasing of Deregulation: Normative versus Positive Objectives, **European Public Choice Society**, Konstanz-Meersburg, April 18-21, 1990.
- [19^a] Taxation of Refined Products: An Economic Rationale for Kreuzer's Kreuzer, **Symposium on Operations Research**, Ulm, Sept. 6-8, 1989.
- [18^a] The Political Economics of Oil Prices: Profits vs. Prestige, **Annual Meeting of the European Public Choice Society**, Linz, March 29th - April 1st, 1989.
- [17] Anreizregulierung bei öffentlichen Unternehmen am Beispiel der Elektrizitätsversorgung, **Habilitationskolloquium**, Techn. Universität Wien, 17. Jänner 1989.
- [16] Deregulation of the European Power Industry, **IIASA Energy Conference, Regional Energy Strategies and Global Interactions**, Nov. 14-16, 1988, Laxenburg.
- [15] (Ökonomische) Probleme der Energiewirtschaft: Ein Überblick, **Kolloquium der Fakultät für Elektrotechnik**, 19. Oktober 1988.
- [14^a] Dynamic Demand, Consumer Expectations and Monopolistic Resource Extraction: An Application to OPEC Pricing Policies, **European Economic Association, Third Congress**, Bologna, August 27-29, 1988.
- [13^a] Dynamic Demand, Consumer Expectations and Monopolistic Resource Extraction: An Application to OPEC Pricing Policies, **Optimization Days**, Montreal (Kanada), May 2-5, 1988.
- [12^a] Resource Extraction: Imperfect vs. Perfect Substitutes, **DGOR-NSOR Tagung**, Eindhoven, September 23-25, 1987.
- [11^b] mit Gerd Infanger: Energiewirtschaftliche Konsequenzen und Umweltaspekte eines Ausstieges aus der Kernenergie in der BRD, **ÖGOR-SVOR Tagung 1987**, Graz, 6. - 8. Juli 1987.
- [10^b] On the Economic Rationale of Kreuzer's Kreuzer, **ÖGOR-SVOR Tagung 1987**, Graz, 6. - 8. Juli 1987.
- [9^b] Kartellstrategien und Konkurrenz in Ressourcemarkten: Eine Anwendung auf die OPEC, **6. Symposium - der Computer als Instrument der Forschung und Lehre**, 15.- 16. Dezember 1986.
- [8] Economic and Political Reasons for a Zig-Zag Evolution in Crude Oil Prices, **International Roundtable on Energy, Technology and the Economy**, IIASA, Laxenburg, Oct. 28-30, 1986.
- [7^a] Marketing D.P. Software: The Threat from Piracy, **11. Symposium über Operations Research**, T.H. Darmstadt, September 1-3, 1986.
- [6^a] Planning of Production under Environmental Constraints, **Fourth International Working Seminar on Production Economics**, Igls, February 17-21, 1986.

- [5^b] mit Gerd Infanger, Energiesparen und Brennstoffsubstitution, **SVOR-ÖGOR Tagung**, Zürich, September 1984.
- [4^a] Stable and Volatile Prices: An Explanation by Dynamic Demand, **Second Viennese Workshop on Economic Applications of Control Theory**, Vienna, May 16-18, 1984.
- [3] mit Gerd Infanger, Unteilbare und irreversible Investitionsentscheidungen, eine Anwendung für den Fall des Energiesparens, **Arbeitskreis für OR**, Wien, 1984.
- [2^a] Optimal Production of Oil and Gas, **Third International Working Seminar on Production Economics**, Igls, Februar 21, 1984.
- [1^a] mit Abodunde T., Exhaustible Resources: Market Discrimination and Local Pricing, Vienna, **EURO VI**, July, 1983.

3.2. *At firms and other institutions*

- [24] Natural gas markets: Fundamentals and Puzzles, OPEC Secretariat, July 17th, 2014.
- [23] Es gibt kein Paradies, Volkswirtschaftliche Gesellschaft Kärnten, WKÖ, Klagenfurt, 14. Oktober 2013.
- [22] Quantitative Approaches for Investments (under Uncertainty) and Takeovers (and Mergers), Optimierungsworkshop, BASF, 28. Oktober 2011.
- [21] Elektrizitätswirtschaft – Öffentlich versus Privat?, Daseinsvorsorge: Weniger Staat - mehr Markt?, Wien, 1. April 2003.
- [20] Ölpreisvolatilität, Fördermengen und der Einfluß von Steuern, Energiegespräche - Ölpreis auf der Achterbahn, Technisches Museum Wien, 23. Jänner 2001.
- [19] Zur Politischen-Ökonomie der Energiebesteuerung, Energiewirtschaftliches Kolloquium - Ökologische Steuerreform und Kohlepolitik, Magdeburg, 20. Juni 1997.
- [18] Probleme und Erfahrungen, Integrated Resource Planning, Wiener Expertenforen`96, Wien U3-Besucherforum, 24. April 1996.
- [17] Wie wirtschaftlich können Energiesparmaßnahmen von Versorgungsunternehmen?, Weniger Energie - mehr Dienstleistung? (VEÖ), Wien am 15. Mai 1995.
- [16] Effiziente industrielle Organisation der österreichischen Elektrizitätsversorgung, VÖI, Wien am 20. Jänner 1995.
- [15] Theoretisch-ökonomische Grundlagen von Energiesparstrategien und Least-Cost Planning, CO2-Reduktionsmaßnahmen in Zusammenarbeit mit kommunalen EVU-Least-Cost Planning als Instrument der Entkoppelung von wirtschaftlichem Erfolg und Energieverkauf bei EVU, Ökologie Institut, Wien, 21. März, 1994.
- [14] Energy taxes - critical remarks, OPEC Secretariat, February, 26th, 1993.

- [13] CO2 Lenkungssysteme - Absichten und deren Machbarkeit, Faktum CO2, 15. Oktober Wien, 1992.
- [12] 50% mehr oder 50% weniger Strom in den nächsten 20 Jahren, OKA, Linz, 27. Juni 1991.
- [11] mit Peter J. Jansen, Unsichere Energiemärkte. Politik-Ökonomische Betrachtung zur Öffnung Osteuropas, Symposium (WEC & ÖMV) Die Stellung der österreichischen Energiewirtschaft zur Europäischen Gemeinschaft und zur Öffnung des Ostens, 7. März 1991, ÖMV Schwechat.
- [10] Energy Markets of the CPES, Presentation at the OPEC Secretariat, 11. Januar 1991.
- [9] Modelling Energy Demand Relations: Review and Suggestions for the Implementation within OWEM, Meeting of Experts on OWEM, OPEC Sekretariat, 13. Dezember, 1989.
- [8] Energy Modelling - A Survey of Related Topics, Meeting of Experts on OWEM, OPEC Sekretariat, 11. Dezember 1989.
- [7] mit Peter J. Jansen, Der nächste Ölpreisschock und seine Folgen. Tarifpolitik in der Elektrizitätswirtschaft, Vorträge anlässlich eine energiewirtschaftlichen Gesprächs vor dem Industriewissenschaftlichen Institut, 23. November 1988.
- [6] Eine quantitative Analyse der wirtschaftlichen Konsequenzen der umweltpolitischen Forderungen am Beispiel der Bundesrepublik Deutschland, KFA-Jülich, November 1987.
- [5] Wirtschaftliche Konsequenzen aus Entsorgung der Umweltbelastung, eine quantitative Input/Output Analyse für die Bundesrepublik, KFA-Jülich, November 1985.
- [4] Kritische Betrachtungen zur österreichischen Energie- und Umweltpolitik, Energie, Umwelt und Zusammenarbeit in Europa, Ottenstein, 11.-14. November 1985.
- [3] Energiesparen zwischen Wunsch und Wirklichkeit, Energiepfade für Österreich - Analysinstrumente, Seminar der IBM-Österreich und des Institutes für Energiewirtschaft, Wien, 29.-30. November 1984.
- [2] Kritische Anmerkungen zu einem österreichischen Energiekonzept, Wien, 1984.
- [1] Energiesparen und Energieträgersubstitution als Funktion der Energiepreise, MOBIL-Seminar, Zell am See, 20.-23. Mai 1984.

3.3. Presse Conferences

Wechselwirkungen: Energiepreise - Energienachfrage, **Pressekonferenz des BMFHGI** (Vizekanzler Dr. N. Steger), 9. Juli 1986, Wien.

mit Peter Jansen, Weltölmodell, **Pressekonferenz des BMFHGI** (Vizekanzler Dr. N. Steger), 6. November 1986, Wien.

mit Helmut Frisch und Ingo Schmoranz, Energiesparpotentiale für Österreich, eine Replik, **Verband der Elektrizitätswerke Österreichs**, 4. Juni 1991, Wien, Mariott.

4. Unpublished Papers

2011 –

With Hussein Moghaddam and Jalal Dehnavi Are Oil Price Forecasts Revised Early and Often?

Wholesale versus Retail Pricing with Downstream Firms ('Amazon' and 'Apple') that Add Value and have First Mover Advantage

Competitive Equilibria as the Limit of Differential Games

With Carsten Helm, Multilateral externalities: Contracts with private information either about costs or benefit.

With Carsten Helm, Climate policies with private information: The case for unilateral action

With Carsten Helm, 'Equivalent' characterizations of agents can affect contracts.

Contracting with intrinsically motivated and reciprocal agents

Thresholds, Limit Cycles, and Indeterminacy in Competitive Economies Due to a Dynamic Externality (1st draft)

With Magdalena Six, Switching Rates of Electricity Suppliers in Austria.

With Yuri Yegorov, Iran's Nuclear Program and the West's Response: A Game Theoretic Approach

With Jalal Dehnavi and Yuri Yegorov, Arbitrage in Natural Gas Markets?

Arbitrage, Intertemporal Market Equilibrium and (Political) Uncertainty.

With Magdalena Six, Optimal global warming policies when discount rates are endogenous. (LNG) Arbitrage, Market Equilibrium and (Political) Uncertainty.

Downstream and Upstream Oligopolies: Retail vs Wholesale Pricing

With Yuri Yegorov, Gas Transportation, Geopolitics and Future Market Structure.

With Yuri Yegorov, Economics of Talent: Dynamics and Multiplicity of Equilibria

With Ismael Alexander Boudiaf , Yuri Yegorov, US Shale Gas Revolution and World Gas Supply Shock

2005 – 2010

Nuclear Power: When to Stop, Temporarily or Forever? (draft)

Subsidizing Solar Energy: When to Stop? (draft)

Optimal OPEC Strategies Facing Permanent and Transient Demand Shocks - draft

Intra-national (Austria) and across Border Price Differences in a Common Market with a Common Currency and Language: The Case of Used Cars

Energy relations between Russia and EU with emphasis on natural gas

With Udo Brändle, Exchanging Bosses – Lessons from Soccer Coaches for CEOs.

2000 - 2004

Economies with and without externalities: Conditions for Observational Equivalence, draft.

Subsidizing Solar Energy: When to Stop? (at UTS).

Comment on Habitat Conservation, Wildlife Extraction and Agricultural Expansion.

Nonlinear Markov Strategies, Patching, Inada Conditions and Uniqueness.

mit Aria Rodgarkia-Dara, Auswirkungen der Liberalisierung des österreichischen Elektrizitätsmarkts.

mit Michael Stadler und Hans Auer, Strategic Elements of Electricity Supply: A Simple Game Approach and Application to Nordpool.

Sustainable growth, renewable resources and pollution - thresholds and cycles.

mit Franz X. Hof, Interior and Multiple Equilibria in Open Economy Versions of the Ramsey Model due to Wealth Effects.

Thresholds and Cycles when Economics and Environment Interact Intertemporal

Pricing of Non-Durable Goods: Sub game Perfect Equilibria, draft.

International Greenhouse Gas Emissions when Global Warming is a Stochastic Process

Optimal Budgets given Private Information of Law Enforcement Agencies (draft).

mit Franz X. Hof, Status in Open Economy Versions of the Ramsey Model.

Optimal Integration Facing Private Information.

1995 - 1999

mit Gustav Feichtinger, Conditions for Unstable Equilibria in Strictly Concave Optimizations, Preprint #10/98, Otto-von-Guericke Universität Magdeburg.

mit Claus Huber, Principal-Agent Relations with External Payments (draft).

Außergerichtliche Unternehmensinitiativen bei Umwelthaftung, Preprint #32/97, Otto-von-Guericke Universität Magdeburg.

(Übersehene) Probleme bei der Einführung von Energieabgaben, Preprint #15/97, Otto-von-Guericke Universität Magdeburg.

Limit Cycles as Competitive Equilibrium Due to Adjustment Costs and Externalities, Preprint #9/97, Otto-von-Guericke Universität Magdeburg.

mit G. Feichtinger, Intrafamilial Consumption and Saving under Altruism and Wealth Considerations, **Forschungsbericht** 9721 des *Ludwig Boltzmann Instituts zur Analyse wirtschaftspolitischer Aktivitäten*.

Rationality of Unemployment due to High Wages, January 1997, Preprint #4/97, Otto-von-Guericke Universität Magdeburg.

mit Claus Huber, Voluntary Approaches to Pigovian Externalities, under Asymmetric Information, December 1996, Preprint #27/96, Otto-von-Guericke Universität Magdeburg.

The Practice of Utility Conservation Programs in the United States: A Positive Rationalization, Preprint #10/96, Otto-von-Guericke Universität Magdeburg.

Socially optimal conservation incentives.

mit Helmut Frisch, Fiscal Policies within an international, strategic and dynamic context, first version.

mit Wolfgang Orasch, Analyse US-amerikanischer Demand-Side-Management Programme. A Positive Theory of United States DSM-Practice.

-1994

On the Capacity Decisions of OPEC Member Countries.

Economics of Energy Conservation Programs.

mit Reinhard Haas und Christian Reiter, The Salisbury Appliance Turn-in Program: Some Empirical Findings.

Optimale Ressourcenerhaltung und der Weltölmarkt: Eine Anwendung, *Dissertation*, Technische Universität, Wien, 1982.

Are Oil Prices Going Tumble and Jump up Again?, OPEC Secretariat, 1982.

OPEC Policies: The Impact on Demand/Supply, Opec Secretariat, 1982.

Price Competitiveness of Different Fuels for Different Uses, Opec Secretariat, 1982

Müssen Ölpreise weiter steigen?, 1983.

Nachfrage nach Strom in Österreich: Analyse und Prognose, 1984.

Energiesparen und Energieträgersubstitution als Funktion der Energiepreise, 1984.

mit Gerd Infanger, Unteilbare und irreversible Investitionsentscheidungen, Eine Anwendung für den Fall des Energiesparens, 1984.

Statistische Auswertungen der Messungen aus dem Projekt MIEZE, 1985.

Kartellstrategien und Konkurrenz in Ressourcemarkten: Eine Anwendung auf die OPEC, Papier präsentiert auf dem **6. Symposium - der Computer als Instrument der Forschung und Lehre**, November 1986.

Economic and Political Reasons for a Zig-Zag Evolution in Crude Oil Prices, geplant für das dann nicht zustande gekommene Buch, Tibor Vasko (ed.), *Energy, Technology and the Economy*.

Umweltpolitische Regulierung von Firmen: Ein Vergleich von Instrumenten der öffentlichen Umweltpolitik, 1986.

Dynamic Demand, Consumer Expectations and Monopolistic Resource Extraction: An Application to OPEC Pricing Policies, 1988.

mit Masood V. Samii und Robert J. Weiner, The Determinants of Crude Oil Prices: OPEC versus Speculators, **Discussion Paper E-89-05**, *Energy and Environmental Policy Center, Harvard University*, June 1989.

mit Masood Samii und Robert J. Weiner, The Instability of the Determinants of Opec Official Crude Oil Prices, Harvard University, May 1988.

mit Masood Samii und Robert J. Weiner, The Impact of Speculation on Crude Oil Prices, Harvard University, May 1988.

Die Theorie öffentlicher Firmen: Effiziente Rahmenbedingungen für öffentliche Versorgungsunternehmen, *Habilitationschrift*, Juni 1988.

(Ökonomische) Probleme der Energiewirtschaft: Ein Überblick, Papier für den Vortrag im Rahmen des Kolloquiums der Fakultät für Elektrotechnik, 19. Oktober 1988.

Deregulation of the European Power Industry, paper prepared for **IIASA Energy Conference, Regional Energy Strategies and Global Interactions**, Nov. 14-16, 1988, Laxenburg.

Dynamic Demand and Optimal Opec Pricing, November 1988

Anreizregulierung bei öffentlichen Unternehmen am Beispiel der Elektrizitätsversorgung, Papier für Habilitationsvortrag, Jänner 1989.

Optimal Price Strategies when Profit and Prestige Matter, April 1989. Ein empirisches Modell für den österreichischen Energiemarkt, Mai 1989.

mit Peter J. Jansen, Perspektiven der österreichischen Energiewirtschaft, April 1989.

mit Peter J. Jansen, Grundlagen zur Gestaltung öffentlicher Stromtarife, September 1989.
Two-Part Tariffs, October 1989.

Modelling Energy Demand Relations: A Review of Recent Studies, paper presented at **Meeting of Experts on OWEM**, OPEC Secretariat, December 1989.

mit Elisabeth Szirucsek, Auswirkungen einer Energieabgabe in Österreich: Ein quantitativer Versuch, März 1990.

mit Peter J. Jansen, Salzburger Aktion für Energiesparer, Eine Nachanalyse, für den Vorstand der SAFE, Juni 1990.

mit R. Haas, Verbraucherseitige Energiepolitik, Dezember 1990.

mit Gustav Feichtinger, On the Stability and Eventual Cyclicity of Corruption within Governments subject to Popularity Constraints, Forschungsbericht #136, Institut für Ökonometrie, Operations Research und Systemtheorie, December 1991.

The Optimal Use of Environmental Resources by an Indebted Country - A Proposed Modification, September 1991.

CO₂ Emission Taxes: Energy Producers (OPEC) versus Consumers. A Differential Game, October 1991.

Asymmetrical Energy Demand due to the Irreversibility of Technological Progress: An Empirical Investigation of the Transport Sector, November 1991.

Energy & Oil Demand. A Sectorial Investigation.

Some critical remarks on the incentives for conservation by public utilities, February 1993.

mit G. Feichtinger, F. Hof, M. Luptacik, W. Lutz, A. Prskawetz, Does Migration induced by income differentials generate demo-economic chaos? 1993.

Research projects (sample)

ENDEM re-estimation, für OPEC Sekretariat, 1985.

mit I. Müller, M. Haider, P. Jansen, A. Kafka-Lützow, H. Knötig und E. Panzhauser, Analyse des Klimakammer-Experimentes zu Projekt **MIEZE** (mathematisch-statistisch Auswertung) Forschungsbericht für das **Ministerium für Wissenschaft und Forschung**, 1985.

mit Gerd Infanger, *Analyse von ökonomischen und administrativen Randbedingungen des Energiesparens*, Forschungsbericht (3 Bände) für das Ministerium für Wissenschaft und Forschung, 1985.

mit Peter J. Jansen, Manfred Strubegger, Sabine Messner, **SMEE Scenario Model Energy and Economy, Ein Modellsystem zur Analyse der Wechselwirkungen von wirtschaftlicher Entwicklung und Energiesituation**, 1986, Forschungsbericht für den **Fonds zur Förderung von Wissenschaft und Forschung**.

Arbeitskreis *Problemfelder* des "Österreichischen Energiekonzeptes 1984", *Transport*, (für das **Handelsministerium**).

mit Gerhard Hanappi, *Prognosen arabischer Länder*, 1985, für AUSTROPLAN.

BRENER, Brennstoffsubstitution und Energiesparen, 1986, (für die **Wr. Stadtwerke**).

Energiepreise, Einflüsse und Möglichkeiten im Rahmen einer nationalen Energiepolitik zur Abschätzung wahrscheinlicher Entwicklungen, September 1986, für das **Handelsministerium**.

Energiepreis-Projektionen bis zum Jahr 2000, November 1986, für **Chemie Linz A.G.**

mit Peter J. Jansen, Argumentationshilfen zu den Strom-Tarifverhandlungen für die **Alu-Hütte Ranshofen**, 1986, (AMAG).

Laufende, ad hoc Unterstützung des **OPEC Sekretariats** bei (globalen) Energiemodellen.

Entwicklung eines auf einem PC-lauffähigen Modells des globalen Energiemarktes für den Zweck von Prognosen, für das **OPEC Sekretariat**, 1987.

Review of OPEC's World Energy Model (OWEM), May 1988, **OPEC Sekretariat**.

Beitrag zu: *Bewertung von Heizsystemen* (von Jansen et al.), Analyse des Aspektes *Versorgungssicherheit*, interdisziplinäres Projekt für das **Ministerium für Wissenschaft und Forschung**, 1987.

Beitrag zu: *Marktchancen von Wärmepumpen* (P. J. Jansen, R. Haas et al.): Design und Analyse des Problems *Brennstoffsubstitution und/oder Energiesparen*, siehe [24] unter 1.2, für das **Ministerium für Wissenschaft und Forschung**.

Quantitative Analyse der bundesdeutschen Umweltpolitik, in Zusammenarbeit mit der **Kernforschungsanlage Jülich**.

Ein empirisches Modell für den österreichischen Energiemarkt, für das Ministerium für wirtschaftliche Angelegenheiten im Rahmen des **Energiekonzeptes 1989**, Juni 1989.

mit G. Infanger und P. J. Jansen, *Energiesysteme unter der Sicht verschiedener Ziele*, Forschungsbericht für das **Ministerium für Wissenschaft und Forschung**, Juni 1989.

mit Peter J. Jansen, **Arbeitskreis Tarife** im Rahmen des österreichischen **Energiekonzeptes 1989**, (Vorsitz Dr. Teufelsbauer), Erstellung des Papieres, Grundlagen zur Gestaltung öffentlicher Stromtarife, Sommer 1989.

Energy Modelling - A Survey of Related Topics, prepared for **Meeting of Experts on OWEM**, OPEC Sekretariat, Dec. 11, 1989.

Modelling Energy Demand Relations: Review and Suggestions for the Implementation within OWEM, prepared for **Meeting of Experts on OWEM**, OPEC Sekretariat, Dec. 13, 1989.

Restructuring of Eastern Europe: Consequences on the World Oil Market, **Centre for Global Energy Studies**, London, 1990.

mit P.J. Jansen, *Salzburger Aktion für Energiesparer*, für die **SAFE**, Juni 1990.

The Energy Markets of the (formerly) CPES - an additional module for OWEM. Development of an Energy Demand-Supply Module for OWEM (OPEC'S WORLD ENERGY MODEL) to cover the (formerly) central planned economies, **OPEC Sekretariat**, December 1990.

mit Helmut Frisch und Ingo Schmoranz, *Energiesparpotentiale für Österreich. Eine Replik*, Forschungsbericht im Auftrag des **Verbandes der Elektrizitätswerke Österreichs**, Mai 1991.

mit Werner Pochman, *Energy & Oil Demand. A Sectorial Investigation*, **OPEC Sekretariat**, October 1991.

Asymmetrical Energy Demand - Transport Sector, **OPEC Sekretariat**, 1991.

Comments on *OPEC'S World Energy Model*, December 1991, **OPEC Sekretariat**, Januar 1992.

gemeinsam mit Peter J. Jansen und Reinhard Haas, *Salzburger Aktion für Energiesparer: Abschätzung der Rentabilität der SAFE-Gerätetauschaktion anhand empirischer Daten*, für die **SAFE**, Jänner 1992.

A quarterly oil demand model for the major six industrialized countries, **OPEC Sekretariat**, June 1992.

Modelling of Asymmetrical Energy Demand Relations within OWEM, **OPEC Sekretariat**, August 1992.

mit Reinhard Haas, *Die Effizienz verbraucherseitiger Energiesparstrategien*, **Ministerium für Wissenschaft und Forschung**, Zwischenbericht, Oktober 1992.

Energy & Oil Demand Projections with OWEM. A Sectorial Investigation, **OPEC Sekretariat**, November 1992.

Wirtschaftliche Effizienz EVU-seitiger Sparmaßnahmen, **Ministerium für Wissenschaft und Forschung**, Endbericht, November 1993.

Capacity Decisions of OPEC Member Countries, **OPEC Sekretariat**, Januar 1994.

zusammen mit Peter J. Jansen und Wolfgang Orasch, *Grundlagen zum Entwurf eines Monitoring Systems zur Wirksamkeit verschiedener Maßnahmen zum Stromsparen*, für den **Verband der Elektrizitätswerke Österreichs**, April 1994.

Asymmetrical Energy Demand and Implementation within OWEM, **OPEC Sekretariat**, August 1994.

Analysis of NONOPEC Supply: Seasonal Patterns and Short Run Price Sensitivity, **OPEC Sekretariat**, November 1994.

Effiziente industrielle Organisation der österreichischen Elektrizitätsversorgung, **Industriewissenschaftliches Institut**, November 1994.

Integrated Resource Planning: Analyse und Modelle zum Wiener Strommarkt, Marketing, Preise & Kosten, für **Wienstrom**, 1995.

Preisdifferenzierung und nichtlineare Tarifierung für den **Verband der Elektrizitätswerke Österreichs**, VEÖ-EFG Projekt 5.24, 1999.

Prozessmodell für den Handel mit elektrischem Strom, für **Paradigma**, Februar 2000.

mit Aria Rodgarkia-Dara, *Gutachten zu den Vorschlägen zur Regulierung von Netztarifen*, im Auftrag des VEÖ, Dezember 2002.

Gas Markets: Spatial Pricing, Dynamics, Oligopolies, Transit Games and Politics with Focus on Europe, ÖNB-Jubiläumsfonds, 2008-2009

Konzeption eines ökonomischen Modells zur Identifikation von Investitionsanreizmechanismen für elektrische Netze und Ableitung neuer regulatorischer Maßnahmen, FFG #815707, 2008-2011.

Mit Edward Hunter Christie (Ed.), Joseph Francois, Waltraut Urban, *China's foreign oil policy: genesis, deployment and selected effects*, FIW Research Reports 2009/10 N° 03, 2010, by the Austrian Federal Ministry of Economics, Family and Youth (BMWFJ) within the framework of the 'Research Centre International Economics' (FIW) in November 2008.

Energy Threats of the 21st Century: Global Warming and Fossil Fuel Scarcity. FFW # 24991-G16.

5. Others

5.1. Editorial Board:

The Energy Journal
Journal of Cleaner Production
Journal of Interdisciplinary Economics

5.2. Refereeing

American Economic Review, Economic Journal, Econometrica, Journal of Economic Theory, International Economic Review, European Economic Review, Economica, Canadian Journal of Economics, Journal of Economic Dynamics and Control, Journal of Public Choice, Journal of Economic Behavior and Organizations, International Journal of Industrial Organization, Macroeconomic Dynamics, Journal of Economics, German Economic Review, Empirical Economics, European Journal of Political Economy, Journal of Socio-Economics, Journal of Environmental Economics and Management, Environmental and Resource Economics, Environment and Development Economics, Energy Journal, Resource & Energy Economics, Energy Economics, OPEC Review, Natural Resource Forum, Natural Resource Modeling, Management Science, European Journal of Operational Research, Operations Research, Zeitschrift für Betriebswirtschaft, OR-Spektrum, Multi-criteria Decision Analysis, Journal of Optimization Theory and Applications, etc.

For conferences, in particular for several *EAERE* meetings.

National Science Foundation, Fond zur Förderung der wissenschaftlichen Forschung, Österreichische Nationalbank, Swiss National Science Foundation, etc.

5.3. Membership of

Research Council des *Einergiewirtschaftlichen Instituts* Köln

Ausschusses für *Umwelt- und Ressourcenökonomie*

Kommission *Öffentliche Wirtschaft und Verwaltung*

Senate of the *Christian Doppler Forschungsgesellschaft*