

# **Curriculum Vitae**

## **Prof. Dr. Klaus Eisenack**

klaus.eisenack@uni-oldenburg.de

### **Academic Grades**

2011	Positive evaluation of assisstant professorship „Environment and Development Economics“, Carl von Ossietzky University Oldenburg, Germany
2006	Dissertation in Mathematics, Free University Berlin ( <i>summa cum laude</i> ), Dissertation: „Model Ensembles for Natural Resource Management“, Disputation: „Differential Games of Environmental Agreements“
2001	Diploma in Mathematics ( <i>sehr gut</i> ), Carl von Ossietzky University Oldenburg, Diploma thesis: „Modellierung unter Unsicherheit: Qualitative Differentialgleichungen in der Bioökonomik“
1999	Examination in Philosophy and Economics ( <i>sehr gut</i> ), Carl von Ossietzky University Oldenburg

### **Employment**

since 2014	Associate professor „Economics, in particular environment and development economics“, Carl von Ossietzky University Oldenburg, Germany
since 2012	Speaker of the Oldenburg Center for Sustainability Economics and Management (CENTOS), Carl von Ossietzky University Oldenburg
since 2008	Head of Chameleon Research Group (funded by the German Ministry for Education and Research, Program for Social-Ecological Research)
2008 – 2014	Assistant professor „Environment and Development Economics“, Carl von Ossietzky University Oldenburg, Germany
2001 – 2008	Scientist at the Potsdam Institute for Climate Impact Research
1996 – 2001	Student assistant at Carl von Ossietzky University Oldenburg

### **Guest scientist**

Sep. 2011 – Dec. 2011, Indiana University in Bloomington, USA, Ostrom Workshop in Political Theory and Policy Analysis (collaboration with Prof. Elinor Ostrom, Prof. McGinnis, Prof. Cox)
Dec. 2003 – Jan. 2004 CREA, École Polytechnique, Paris: Analyzing Influence Diagrams by Linking Qualitative Dynamics and Viability Theory (collaboration with Prof. Dr. Aubin, Prof. Dr. Saint-Pierre)
Sep. – Dez. 1995 University of Stirling, Scotland: courses in mathematics, philosophy und environmental science

## Peer Reviewed Papers

- Eisenack, K., S. Moser, E. Hoffmann, R. Klein, C. Oberlack, A. Pechan, M. Rotter, and C. Termeer (2014) Overcoming barriers to climate change adaptation, *Nature Climate Change*, in press.
- Eisenack, K. and A. Pechan (2014) The impact of heat waves on electricity spot markets, *Energy Economics*, DOI 10.1016/j.eneco.2014.02.006.
- Eisenack, K. (2014) The inefficiency of private adaptation to pollution in the presence of endogenous market structure, *Environmental and Resource Economics* 57 (1), 81-99.
- Oberlack, C. und K. Eisenack (2014) Alleviating barriers to urban climate change adaptation through international cooperation, *Global Environmental Change* 24, 349-362.
- Reckien, D. and K. Eisenack (2013) Climate change gaming on board and screen: a review, *Simulation & Gaming* 44 (2-3), 249-267.
- Eisenack, K. (2013) Interdisciplinary communication and education with a board game on climate change, *Simulation & Gaming* 44 (2-3), 324-344.
- Eisenack, K., O. Edenhofer and M. Kalkuhl (2012): Resource rents: the effects of energy taxes and quantity instruments for climate protection, *Energy Policy* 48, 159-166.
- Eisenack, K. (2012): Adaptation financing in a global agreement: is the adaptation levy appropriate?, *Climate Policy* 12, 491-504.
- Stecker, R., T. Mohns and K. Eisenack (2012): Anpassung an den Klimawandel – Agenda Setting und Politikintegration in Deutschland, *Zeitschrift für Umweltpolitik und Umweltrecht* (ZfU), 2/2012, 179-208.
- Eisenack, K. and R. Stecker (2012): A framework for analyzing climate change adaptations as actions, *Mitigation and Adaptation Strategies for Global Change* 17 (3), 243-260.
- Eisenack, K., R. Stecker, D. Reckien and E. Hoffmann (2012): Adaptation to climate change in the transport sector: a review of actions and actors, *Mitigation and Adaptation Strategies for Global Change* 17 (5), 451-469.
- Schlüter, M., R. R. J. McAllister, R. Arlinghaus, N. Bunnefeld, K. Eisenack, F. Hölker, E.J. Milner-Gulland, B. Müller, E. Nicholson, M. Quaas, M. Stöven (2012): New horizons for managing the environment: a review of coupled social-ecological systems modeling, *Natural Resource Modeling* 25 (1), 219-272.
- Reckien, D., K. Eisenack and M. Lüdeke (2011): Land consumption by urban sprawl - a new approach to deduce urban development scenarios from actors' preferences, *Environmental Modeling and Assessment* 16:465–477.
- Reckien, D. and K. Eisenack (2010): Urban sprawl: using a game to sensitize stakeholders to the interdependencies among actors' preferences, *Simulation & Gaming* 41 (2), 260-277.
- Leimbach, M. and K. Eisenack (2009): A trade algorithm for multi-region models subject to spillover externalities, *Computational Economics* 33 (2), 107-130.
- von Bloh, W., C. Bounama, K. Eisenack, B. Knopf and O. Walkenhorst (2008): Estimating the biogenic enhancement factor of weathering using an inverse viability method, *Ecological Modelling* 216, 245-251.
- Eisenack, K., V. Tekken and J. Kropp (2007): Stakeholder perceptions of climate change in the Baltic Sea region, *Coastline Reports* 8, 245-255.

- Eisenack, K. (2007): A common framework for qualitative and quantitative modelling, Working Papers of the 21st Annual Workshop on Qualitative Reasoning, Aberystwyth.
- Eisenack, K., J. Kropp and H. Welsch (2006): A qualitative dynamical modelling approach to capital accumulation in unregulated fisheries, Journal of Economic Dynamics and Control 30, 2613-2636.
- Eisenack, K., J. Scheffran and J. Kropp (2006): Viability analysis of management frameworks for fisheries, Environmental Modelling and Assessment 11, 69-79.
- Eisenack, K. (2003): Qualitative viability analysis of a bio-socio-economic system, in P. Salles and B. Bredeweg (Ed.): Working Papers of 17th Workshop on Qualitative Reasoning, Brasilia, 63-70.
- Welsch, H. and K. Eisenack (2002): Energy costs, endogenous innovation and long-run growth, Jahrbücher für Nationalökonomie und Statistik 222 (4), 490-499.
- Eisenack, K. and G. Petschel-Held (2002): Graph theoretical analysis of qualitative models in sustainability science, in N. Agell and J. A. Ortega (Ed.): Working Papers of 16th Workshop on Qualitative Reasoning, Sitges, Spanien, Edicion Digital@tres, Sevilla, 53-60.
- Eisenack, K. and J. Kropp (2001): Qualitative modeling and simulation of a coupled bioeconomic system, in G. Biswas (Ed.): Working Papers of 15th Workshop on Qualitative Reasoning, San Antonio, Texas, 182-187.
- Eisenack, K. and J. Kropp (2001): Assessment of management options in marine fisheries by qualitative modelling techniques, Marine Pollution Bulletin 43 (7-12), 215-224.

## **Editorships**

- Siebenhüner, B., M. Arnold, K. Eisenack and K. Jacob (2013): Long-Term Governance of Social-Ecological Change, Routledge, 1-25.
- Eisenack, K. and D. Reckien (2013): Games and Climate Change, special issue Simulation & Gaming 44 (2-3).

## **Book chapters and Monographs**

- Siebenhüner, B., M. Arnold, K. Eisenack and K. Jacob (2013): Long-Term Policies: Setting the Scene, in: B. Siebenhüner, M. Arnold, K. Eisenack and K. Jacob (Eds.) Long-Term Governance of Social-Ecological Change, Routledge, in press.
- Eisenack, K. (2012): Archetypes of adaptation to climate change, in M. Glaser, G. Krause, B. Ratter und M. Welp (Ed.): Human/Nature Interactions in the Anthropocene: Potentials of Social-Ecological Systems Analysis, Routledge, 107-122.
- Pechan, A., M. Rotter and K. Eisenack (2011): Anpassung in der Versorgungswirtschaft. Empirische Befunde und Einflussfaktoren, in A. Karczmarzyk und R. Pfriem (Ed.): Klimaanpassungsstrategien von Unternehmen, Metropolis, 313-336.
- Eisenack, K. (2010): Die ökonomische Rahmung der Adaptation an den Klimawandel, in M. Voss (Hg.): Der Klimawandel – Sozialwissenschaftliche Perspektiven, VS-Verlag für Sozialwissenschaften, 155-170.
- Eisenack, K., M. Lüdeke, G. Petschel-Held, J. Scheffran and J. Kropp (2007): Qualitative modelling techniques to assess patterns of global change, in J. Kropp and J. Scheffran (Ed.):

Advanced Methods for Decision Making and Risk Management in Sustainability Science, NOVA Science Publishers, New York, 83-127.

Eisenack, K. (2006): Model Ensembles for Natural Resource Management: Extensions of Qualitative Differential Equations Using Graph Theory and Viability Theory, PhD thesis, Darwin, FU Berlin, <http://www.diss.fu-berlin.de/2006/326/>

Kropp, J., K. Eisenack and J. Scheffran (2006): Marine overexploitation: a syndrome of global change, in S. Sonak (Ed.): Multiple Dimensions of Global Change, TERI Press, New Delhi, 257-284.

Eisenack, K., O. Moldenhauer and F. Reusswig (2002): Möglichkeiten und Grenzen qualitativer und semiqualitativer Modellierung von Natur-Gesellschafts-Interaktionen, in I. Balzer and M. Wächter (Ed.): Sozial-Ökologische Forschung, ökom Verlag, München, 377-389.

Kropp, J., K. Zickfeld and K. Eisenack (2002): Assessment and management of critical events: the breakdown of marine fisheries and the North Atlantic thermohaline circulation, in A. Bunde, J. Kropp und H.-J. Schellnhuber (Ed.): The Science of Disasters, Springer Verlag, Berlin, 192-216.

## **Discussions Papers and other Publications**

Some discussion papers are currently under peer review.

Eisenack, K. and L. Kähler, The option of adaptation to climate change can support unilateral emission reductions (revise and resubmit with Oxford Economic Papers).

Eisenack, K. and A. Pechan (2013) The impact of heat waves on electricity spot markets, Oldenburg Discussion Papers in Economics V-357-13, University Oldenburg, Germany.

Eisenack, K. and D. Reckien (2013) Climate change and simulation/gaming, Guest editorial for the special issue Simulation & Gaming 44 (2-3), 241-248.

Oberlack, C. und K. Eisenack (2012) Overcoming barriers to urban adaptation through international cooperation? Modes and design properties under the UNFCCC, CEN Paper 03-2012, Constitutional Economics Working Paper Series, Albert-Ludwigs-University Freiburg, Germany.

Eisenack, K. and L. Kähler (2012): Unilateral emission reductions can lead to Pareto improvements when adaptation to damages is possible, Oldenburg Discussion Papers in Economics V – 344 – 12, University Oldenburg.

Antes, R., K. Eisenack and K. Fichter (2012): Wirtschaftswissenschaftliche Ansätze zur Gestaltung von Transformationen zur Nachhaltigkeit, Ökologisches Wirtschaften 3/2012.

Eisenack, K. and R. Stecker (2011): An action theory of adaptation to climate change, Earth System Governance Working Paper 13.

Eisenack, K., R. Stecker, D. Reckien and E. Hoffmann (2011): Adaptation to climate change in the transport sector: a review, PIK Report 122, Potsdam Institute for Climate Impact Research.

Stecker, R., and K. Eisenack (2011): Internationale Adaptationspolitik - vom bottom-up in der Theorie zum top-down in der Praxis, Ökologisches Wirtschaften 2/2011.

Eisenack, K. (2011): Adaptation financing as part of a global climate agreement: is the adaptation levy appropriate?, Wirtschaftswissenschaftliche Diskussionspapiere V – 334 – 11, University Oldenburg.

- Stecker, R., Pechan, A., Steinhäuser, M., Rotter, M., Scholl, G., Eisenack, K., (2011): Why are utilities reluctant to adapt to climate change?, Report, [www.climate-chameleon.de](http://www.climate-chameleon.de)
- Eisenack, K., O. Edenhofer and M. Kalkuhl (2010): Energy taxes, resource taxes and quantity rationing for climate protection, PIK Report 120, Potsdam Institute for Climate Impact Research.
- Eisenack, K. (2010): Auswertung der Testspiele von Keep Cool Online mit Studierenden, Report to Schulen ans Netz e.V.
- Eisenack, K., E. Hoffmann and G. Scholl (2010): Wie passt sich die Versorgungswirtschaft an den Klimawandel an?, Ökologisches Wirtschaften 4/2010.
- Klaus Eisenack and G. Petschel-Held (2004): Keep Cool – Setzen Sie das Klima aufs Spiel, board game on climate change. Spieltrieb, Wiesbaden. Published in cooperation with the Leibniz Gemeinschaft and the German Ministry for the Environment (see [www.spiel-keep-cool.de](http://www.spiel-keep-cool.de)).

## **Organization of Scientific Conferences and Events**

Special Session „Beyond Truisms: Exploring the Contributions of Institutional Analysis to the Study of Climate Change Adaptation“, Workshop on the Ostrom Workshop 5, Bloomington, June 2014.

Special Session „Barriers to Adaptation – Taking Stock and Looking Ahead“, European Climate Change Adaptation Conference, Hamburg, March 2013.

International Research Workshop on the Barriers to Adaptation to Climate Change, Berlin, September 2012, [www.climate-chameleon.de/htm\\_engl/workshop\\_engl.html](http://www.climate-chameleon.de/htm_engl/workshop_engl.html).

11th Biennial International Society for Ecological Economics Conference, Oldenburg, August 2010.

Wie lässt sich sozial-ökologischer Wandel gestalten?, Seminar of social-ecological research groups, Berlin, April 2012.

Special Session „Adapting Infrastructure to Climate Change - Socioeconomic, Biophysical and Theoretical Perspectives“, 11th Biennial International Society for Ecological Economics Conference, Oldenburg, August 2010.

3rd German Workshop on Adaptation Research in the Social Sciences, Bonn, April 2010.

## **Scientific Presentations and Conference Papers**

- 2014    Workshop on the Ostrom Workshop 5, Bloomington, Indiana.
- 2013    20th Annual Conference of the European Association of Environmental and Resource Economists, Toulouse, France.  
European Society for Ecological Economics Conference, Lille, France.  
European Climate Change Adaptation Conference, Hamburg, Germany.
- 2012    Jahrestagung des Vereins für Socialpolitik, Göttingen, Germany.  
19th Annual Conference of the European Association of Environmental and Resource Economists, Prague, Czech Republic.  
Adaptation Futures 2012 International Conference on Climate Adaptation, Tucson,

- Arizona.  
 5th German Workshop on Adaptation Research in the Social Sciences, Kassel, Germany.
- 2011    18th Annual Conference of the European Association of Environmental and Resource Economists, Rome, Italy.  
 9th International Conference of the European Society for Ecological Economics, Istanbul, Turkey.  
 Resilience 2011, Tempe, Arizona.
- 2010    11th Biennial International Society for Ecological Economics Conference, Oldenburg, Germany.  
 3rd German Workshop on Adaptation Research in the Social Sciences, Bonn, Germany.  
 Berlin Conference on the Human Dimensions of Global Environmental Change.  
 NCCARF Climate Adaptation Futures Conference, Gold Coast, Australia.
- 2009    17th Annual Conference of the European Association of Environmental and Resource Economists, Amsterdam, Netherlands.  
 Climate Change: Global Risks, Challenges and Decisions, Copenhagen, Denmark.  
 Conference on the International Dimensions of Climate Policies, Bern, Switzerland.
- 2008    10th Biennial International Society for Ecological Economics Conference, Nairobi, Kenya.  
 Conference of the International Society for Dynamic Games, Wroclaw, Poland.  
 Symposium der Deutschen Gesellschaft für Humanökologie, Sommerhausen, Germany.  
 Berlin Conference on the Human Dimensions of Global Environmental Change, Berlin, Germany.
- 2007    7th International Conference of the European Society for Ecological Economics, Leipzig.  
 German-Polish Coastal Dialogues in the Baltic Framework II on Conditions and Perspectives for Development of ICZM, Międzyzdroje, Poland.  
 3rd International ASTRA conference on Climate Change Adaptation, Riga, Latvia.  
 21st Annual Workshop on Qualitative Reasoning, Aberystwyth, Wales.  
 UN-Dekade „Bildung für nachhaltige Entwicklung“ – Der Beitrag Europas, Berlin, Germany.
- 2006    Institutional Dimensions of Global Environmental Change Synthesis Conference, Bali, Indonesia.  
 Berlin Conference on the Human Dimension of Global Environmental Change, Berlin, Germany.  
 2nd International ASTRA Conference on Climate Change Adaptation, Gdansk, Poland.
- 2005    6th Open Meeting of the Human Dimensions of Global Environmental Change Research Community, Bonn, Germany.
- 2004    First Biennial Meeting of the International Environmental Modelling and Software Society, Osnabrück, Germany.
- 2003    Jahrestagung der Deutschen Physikalischen Gesellschaft, Dresden, Germany.  
 International Workshop on Euro Diffusion, Cercedilla, Spain.  
 17th Workshop on Qualitative Reasoning, Brasilia, Brasil.
- 2002    16th Workshop on Qualitative Reasoning, Sitges, Spain.
- 2001    15th Workshop on Qualitative Reasoning, San Antonio, Texas.

## **Grants and Awards**

Projekt de.zentral (head, 770,000€, 7 collaborators) Institutionell und technologisch konsistente Energiestrategien für eine zentral oder dezentral ausgerichtete Energiewende in Deutschland, German Federal Ministry for Education and Research, expected August 2013 – September 2016, project partners: Potsdam-Institute for Climate Impact Research, partners from industry and politics.

Sectoral economic modeling for the integration of regional earth system modeling (head of a work package, 280,000€), Appointment of the Helmholtz-Zentrum Geestacht, 2014, project partners: Climate Service Center (CSC), Hamburg Institute of International Economics (HWWI), Institut für Ecological Economy Research, TU Dresden, Institute of Economic Structures Research.

Award for good teaching, Carl von Ossietzky University Oldenburg (for winter term 2012/13).

Environmental Award of the Sparda-Bank (November 2013).

PhD Program Systemintegration Erneuerbarer Energien, Lower Saxony Ministry for Research and Culture, 2013 – 2017.

Promotionsprogramm Systemintegration Erneuerbarer Energien, Lower Saxony Ministry for Research and Culture, 2013 – 2017.

Groen Gas – Grünes Gas (head of a work package, 7,003,000€), Subproject “A level playing field for green gas in the European market”, co-financed by the Interreg IV A Programm (EU), 2012-2014.

Chameleon (head, 1,961,000€, 8 collaborators) Adapting utilities to climate change – analysis and development of options for business and policy, Junior research group in the social-ecological research program, German Federal Ministry for Education and Research, 2009–2014, project partners: Institute for Ecological Economy Research, partners from industry and public administration.

Chameleon (head, 60,000€) Prephase, German Federal Ministry for Education and Research, 2008–2009.

Keep Cool Online I and II (head, 7,000€): Entwicklung einer netzfähigen Variante des Klimabrettspiels Keep Cool, German Federal Environmental Ministry, 2008-2010.

BaltCICA (contributions) Climate Change: Impacts, Costs and Adaptation in the Baltic Sea Region, co-financed by the Baltic Sea Region Programme (EU), 2008-2013.

Analyzing Patterns of Vulnerability (contributions), funded by the Netherlands Environmental Assessment Agency, 2007 – 2009.

ADAM (contributions) Adaptation and Mitigation Strategies: Supporting European Climate Policy, EU Integrated Research Project, 2006-2009.

ASTRA (head of a work package) Developing Policies and Adaptation Strategies to Climate Change in the Baltic Sea Region, co-financed by the Interreg III B Programm (EU), 2005-2007.

Viabilität unter Unsicherheit (head), German Science Foundation (DFG), 2005-2007.

Evolution Equations for Deterministic and Stochastic Systems (contributions), EU Research Training Network, 2002-2006.

Typical Cause-Effect Patterns of Land Use Change in Selected Developing and Newly Industrialized Countries (contributions), DFG, 2002-2004.

DIWA Datenintegration und Qualitative Dynamik des Wattenmeers (contributions), BMBF, 1998-2001.

## **Activities as Reviewer or Consultant**

Journals & Publishers (in alphabetical order): AI Communications, B.E. Journal of Economic Analysis and Policy, Climate Policy, Climatic Change, Computational Management Science, Ecological Economics, Ecological Informatics, Ecology and Society, Energy Economics, Environmental Research Letters, Environmental and Resource Economics, Environmental Science & Technology, European Journal on Artificial Intelligence, GAIA, Global Environmental Change, Global Environmental Politics, International Journal of Climate Change Strategies and Management, Journal of Economic Dynamics and Control, Nature Climate Change, NOVA Science Publishers, ökom Verlag, Resource and Energy Economics, Simulation & Gaming, Springer Verlag, WIREs Climate Change.

Organizations: Intergovernmental Panel on Climate Change (IPCC), EU Commission, German Ministry for the Economy, German Ministry for Education and Research, German Environmental Protection Agency, Lower Saxony Governmental Commission for Climate Protection, Research Council of Norway, Bundesverband der Energie- und Wasserwirtschaft, Verband Deutscher Verkehrsunternehmen, RWE AG, DB AG, Fraport AG, HSE AG, Evangelisches Studienwerk Villigst e.V., Regionale Innovationsstrategie Weser-Ems, Schulen ans Netz e.V.

## **Memberships and other Activities**

Speaker of the Board oft the Oldenburg Center for Sustainability Economics and Management (CENTOS), Carl von Ossietzky Universität Oldenburg.

Membership: Ausschuss für Umwelt- und Ressourcenökonomie (AURÖ) des Vereins für Socialpolitik; Verein für Socialpolitik; European Association of Environmental and Resource Economics; International Society for Ecological Economics; genderCC: women for climate justice, Berlin.

CEO of Keep Cool GbR, Development and use of simulation games, Potsdam.

## **Supervision of Dissertations**

Hagen, A. (University Oldenburg, since 2014): „Global climate policy beyond non-national-state actors“

Neubauer, L. (University Oldenburg, since 2013): „The economics of the energy transition“

Oberlack, C. (University Freiburg; with Bernhard Neumärker, since 2013): „Institutional economics of climate adaptation in a polycentric order“

Kähler, L. (University Oldenburg, since 2012): „The role of adaptation for international environmental agreements“

Osberghaus, D. (Centre for European Economic Research, ZEW, since 2010): „The economics of adaptation to climate change – the case of private households in Germany“

Pechan, A. (University Oldenburg, since 2010): „Regulating long-term investment for adaptation to climate change“

Stecker, R. (University Oldenburg; with Annette Töller, FernUni Hagen, since 2010): „The emergence of adaptation policy as a new policy field“

Steinhäuser, M. (University Oldenburg; with Joachim Peinke, since 2010): „Impacts of extreme weather events on the electricity sector“

## Teaching

Umweltökonomie und Umweltpolitik [Environmental Economics] (4 SWS, WiSe 08/09, SoSe 11 - SoSe 14)

Ressourcenökonomik [Resource Economics] (2 SWS, WiSe 09/10, SoSe 14)

Introduction to Institutional Economics (2 SWS, SoSe 14)

Polycentric Governance (4 SWS, WiSe 12/13)

International Regulatory and Competition Policy (2 SWS, WiSe 09/10)

International Issues in Public Finance (2 SWS, Vertretung zweite Hälfte WiSe 08/09)

International Trade and Transnational Production (2 SWS, SoSe 09)

Adaptation to Climate Change (4 SWS, SoSe 09)

Quantitative Research Methods in Sustainability Science (4 SWS, SoSe 10, SoSe 12)

Practical Project in Sustainability Economics and Management: Adaptation to Climate Change (4 SWS, WiSe 10/11, WiSe 11/12)

Practical Project in Sustainability Economics and Management: Simulation and Gaming (4 SWS, WiSe 13/14)

IPCC-Klimabericht: Klimawandel verstehen, sich anpassen, vermeiden (2 SWS, WiSe 08/09, 10/11)

Forschungskolloquium Masterthesis [Research colloquium] (Master, 2 SWS, laufend seit WiSe 10/11)

Methods in Sustainability Science with an Emphasis on Protected Area Management, Institut für Wirtschafts- und Sozialwissenschaften des Landbaus, Humboldt-Universität zu Berlin, mit Studierenden aus Entwicklungsländern im Erasmus Mundus Programm der EU (2 SWS, SoSe 07)

Geographische Mensch-Umwelt-Forschung: Theorie und Praxis, Institut für Wirtschafts- und Sozialwissenschaften des Landbaus, Humboldt-Universität zu Berlin (2 SWS, WiSe 06/07)

Formale qualitative und quantitative Analyse von Mustern globaler Umweltveränderungen, Institut für Physik, Universität Potsdam (2 SWS, WiSe 06/07)

Formale Methoden zur Beschreibung der Wechselwirkung von Natur und Gesellschaft, Institut für Physik, Universität Potsdam, (2 SWS, WiSe 06)

Tutorien: Mathematik für Ökonomen, Universität Oldenburg (WiSe 97/98)

Tutorien: Algebraische Grundlagen der Informatik, Universität Oldenburg (WiSe 96/97)

## Supervision of Diploma, Master and Bachelor Theses

(BA: Bachelor, MA: Master, DP: Diploma; WiRe: Economics, SEM: Sustainability Economics and Management)

- Minnemann: „Auswirkungen des Fracking-Verfahrens auf den Gasmarkt“ (2013, BA WiRe)
- Droste: „Naturschutz im föderalen System Deutschlands - Eine ökonomische Perspektive auf einen ökologischen Länderfinanzausgleich“ (2013, MA SEM)
- Savelsberg: „Impacts of climate change on the German electricity sector – a scenario-based analysis of economic impacts using a DC load flow model“ (2013, MA SEM)
- Roolfs: „Modeling electric network capacity under different institutional settings“ (2012, MA SEM), **awarded** with the Student Award of the Swiss Association for Energy Economics (SAEE)
- Reutter: „Anpassung von Eisenbahninfrastruktur an den Klimawandel: Anreize durch die Leistungs- und Finanzierungsvereinbarung“ (2012, BA WiRe)
- Wronski: „Entwicklung von Klimaanpassungsstrategien auf städtischer Ebene in Deutschland“ (2012, MA SEM)
- Nagel: „Die ökonomischen Auswirkungen des Klimawandels auf die Entwicklung des deutschen Kraftwerksparks“, (2012, DP Wirtschaftsingenieurwesen, Hochschule RheinMain)
- Helberg: „Marktreaktionen einer kurzfristigen Abschaltung von Kraftwerkskapazitäten am Beispiel des deutschen Atommoratoriums“ (2011, BA WiRe)
- Schröder: „Klimaanpassungsstrategien in der Elektrizitätswirtschaft“ (2011, DP WiRe)
- Marscheider: „Energiespeicher als Instrument für Klimaschutz und Adaptation an den Klimawandel“ (2011, MA SEM)
- Kähler: „Der Einfluss von Unsicherheit auf die intertemporale Optimierung von Investitionen bei Klimaveränderungen“ (2011, MA WiRe)
- Lewandowski: „Long-term risks for microfinance institutions from environmental disasters“ (2011, MA SEM)
- Fuchs: „Ausfälle in der Elektrizitätsversorgung – Eine Analyse der betriebswirtschaftlichen und volkswirtschaftlichen Kosten“ (2010, MA SEM)
- Horn: „Smart Grids als Adaptationsstrategie an den Klimawandel“ (2010, MA SEM)
- Mohns: „Anpassung an die Folgen des Klimawandels – Agenda Setting von Anpassungspolitik in Deutschland“ (2010, MA Öffentliches und betriebliches Umweltmanagement, FU Berlin)
- Teichmann: „Bildung für nachhaltige Entwicklung – Empirische Untersuchung des Trittbrettfahrerproblems im Online-Planspiel Keep Cool“ (2010, MA SEM)
- Ghamogha: „On the interdependence between poverty and land degradation in developing countries“ (2010, BA WiRe)
- Mainhardt: „Trassenregulierung im Klimawandel“ (2010, BA WiRe)
- Onyango: „The dependence on and abundance of agriculture in relation to armed conflict: does the resource curse hypothesis hold?“ (2010, BA WiRe)
- Bem: „Anreizregulierung von Versorgungsnetzen im Klimawandel“ (2009, BA WiRe)
- Dinkelacker: „Die Nachhaltigkeit von Anpassung an den Klimawandel durch Wassersektor-Reformen in Sub-Sahara Afrika (Fallstudie Makueni Distrikt, Kenia)“ (2009, MA SEM)
- Jansen: „Distributive Gerechtigkeit bei der Finanzierung von Adaptation an den Klimawandel – Wirkungsanalyse am Beispiel einer internationalen Flugabgabe“ (2009, MA SEM)

Mänz: „Institutional challenges of seaports adapting to climate change“ (2009, MA SEM)  
Steinhäuser: „Climate change: how to model economic benefits of adaptation processes?“ (2009, DP Physik, Universität Potsdam)  
Kalkuhl: „Modeling climate policy instruments in a Stackelberg game with endogenous technological change and market imperfections“ (2008, DP Systemwissenschaften, Universität Osnabrück)

## **Development and Facilitation of Simulation Games, Public Understanding of Science**

K. Eisenack and L. Baumstark (2007): Praxis Emissionshandel: Simulation for 20-60 participants.  
K. Eisenack and G. Petschel-Held (2004, 2013): Keep Cool – gambling with the climate, board game on climate change. Spieltrieb, Wiesbaden. Published in cooperation with the Leibniz Gemeinschaft, the German Ministry for the Environment, and others, www.spiel-keep-cool.de.  
Reckien, D. and K. Eisenack (2004): QUAG - game on urban sprawl.  
Praxis Emissionshandel: Rosa-Luxemburg Stiftung 2007, Potsdam-Institut für Klimafolgenforschung 2008, Universität Oldenburg 2008-14.  
Keep Cool mit Klimakonferenz, Klimatag mit 120 Schülern: John-Lennon-Gymnasium, Berlin 2006, Lenné-Schule, Potsdam 2006.  
QUAG: Sommerschule der Integrated Assessment Society (TIAS) über Stakeholder Participation and Model-Building in Sustainable Resource Management, Osnabrück 2005.  
Keep Cool: Berliner Lange Nacht der Wissenschaften 2004, 2005, 2007; Oldenburger Lange Nacht der Wissenschaften 2009-12, Schülerakademie Nachhaltigkeit 2009, Klimahaus Bremerhaven 2013.  
Das Fischereispiel: Potsdamer Lange Nacht der Wissenschaften 2003, Brandenburger Zukunftstag für Mädchen und Jungen 2003.

## **Further Training**

Training program: Leading, managing and designing interdisciplinary research projects, University Bern and Freiburg, October 2008 until March 2013.  
Training: Facilitation and presentation skills, May 2005, University Potsdam.  
Sommer school of the Integrated Assessment Society (TIAS) on Stakeholder Participation and Model-Building in Sustainable Resource Management, Osnabrück 2005.  
Sommer school of the MONET Network of Excellence on Qualitative Reasoning, Mai 2000, Bertinoro, Italien.