

# Curriculum Vitae

## Klaus Eisenack

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### Working Experience

- since 2001 Research assistant at the Potsdam Institute for Climate Impact Research (PIK). Research interests: qualitative modelling, viability theory, management of natural resources (esp. fisheries) and modelling of institutions, syndrome research, games on global change, adaptation to climate change.
- Dec. 2003 – Jan. 2004: Guest researcher at CREA, Ecole Polytechnique, Paris: Analyzing Influence Diagrams by Linking Qualitative Dynamics and Viability Theory.
- 1999-2001 Student assistant at the Institute for Chemistry and Biology of the Marine Environment (ICBM), University of Oldenburg, Germany.
- 1998-1999 Student assistant at the Department for Economics and Statistics, University of Oldenburg.
- 1996-1998 Mathematical tutorials at the University of Oldenburg.

### Education

- 2006 (expected in February) PhD in Mathematics, Free University Berlin. Thesis on “Model Ensembles for Natural Resource Management”.
- 2001 Diploma in Mathematics, University of Oldenburg, Germany. Diploma thesis on “Modelling under Uncertainty: Qualitative Differential Equations in Bioeconomics”.
- 1999 Examination in philosophy and economics, University of Oldenburg.
- 1995 Course in statistics, philosophy and environmental science, University of Stirling, Scotland.

### Publications

#### Contributions to Books

- J. Kropp, K. Eisenack, J. Scheffran (2006): Marine Overexploitation: A Syndrome of Global Change, to appear in S. Sonak et al. (eds.): Multiple Dimensions of Global Change: The Role of Institutions, The Energy and Resources Institute, New Delhi, India, forthcoming.
- J. Kropp, K. Zickfeld, 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, H. J. Schellnhuber (eds.): The Science of Disasters, Springer, 192 – 216.
- K. Eisenack, O. Moldenhauer, F. Reusswig (2002): Möglichkeiten und Grenzen qualitativer und semiquantitativer Modellierung von Mensch-Gesellschafts-Interaktionen, in I. Balzer, M. Wächter (eds.): SozialÖkologische Forschung, ökom Verlag, München, 377-389.

#### Articles

- K. Eisenack, J. Kropp, H. Welsch (2005): A Qualitative Dynamical Modelling Approach to Capital Accumulation in Unregulated Fisheries. Journal of Economic Dynamics and Control, DOI: 10.1016/j.jedc.2005.08.004.
- K. Eisenack, J. Scheffran and J. Kropp (2005): Viability Analysis of Management Frameworks for Fisheries. Environmental Modelling and Assessment, DOI: 10.1007/s10666-005-9018-2.
- J. Kropp, K. Eisenack, J. Scheffran (2004): Sustainable Marine Resource Management: Lessons from Viability Analysis, in: A. E. Rizzoli, A. J. Jakeman (eds.): Integrated Assessment and Decision Support, Proceedings of the First Biennial Meeting of the International Environmental Modelling and Software Society, 1, 104-109.

K. Eisenack (2003): Qualitative Viability Analysis of a Bio-Socio-Economic System, in P. Salles, B. Bredeweg (eds.): Working Papers of the 17<sup>th</sup> Workshop on Qualitative Reasoning, 63-70. Brasilia.

K. Eisenack, G. Petschel-Held (2002): Graph Theoretical Analysis of Qualitative Models in Sustainability Science, in N. Agell, J. A. Ortega (eds.): Working Papers of 16<sup>th</sup> International Workshop on Qualitative Reasoning, 53-60. Edicion Digit@altres, Sevilla.

H. Welsch, K. Eisenack (2002): Energy Costs, Endogenous Innovation and Long-Run Growth, *Jahrbücher für Nationalökonomie und Statistik*, 222(4), 490-499.

K. Eisenack, J. Kropp (2001): Assessment of Management Options in Marine Fisheries by Qualitative Modelling Techniques, *Marine Pollution Bulletin*, 43(7-12), 215-224.

### **Other**

K. Eisenack, G. Petschel-Held (2004): Keep Cool – Gambling with the Climate. Board game on climate politics. Spieltrieb, Wiesbaden (see <http://www.spiel-keep-cool.de>).

### **Presentations**

Sustainable Management of Natural Resources (invited), Greifswald International Students Festival, June 2005, Greifswald, Germany.

Euromix - Measurement and Simulation of Euro Diffusion (invited), International Workshop on Euro Diffusion, April 2003, Cercedilla, Spain.

Conflict Resolution, Management and Decision-Making for Sustainable Fisheries: A Qualitative Multi-Agent Approach to Viable Control (together with J. Scheffran), Jahrestagung of the German Physical Society (DPG), March 2003, Dresden, Germany.

Graph Theoretical Analysis of Qualitative Models in Sustainability Science, 16<sup>th</sup> International Workshop on Qualitative Reasoning, June 2002, Sitges, Spain.

Qualitative Modelling and Simulation of a Coupled Bio-Economic System (poster), 15<sup>th</sup> International Workshop on Qualitative Reasoning, May 2001, San Antonio, Texas.

### **Simulation&Gaming Facilitation and Design**

QUAM – game on urban sprawl (together with D. Meyer-Veden), Summer School of the Integrated Assessment Society (TIAS) on Stakeholder Participation and Model-Building in Sustainable Resource Management, Osnabrück, Germany, July 2005.

Keep Cool – Gambling with the Climate, Berliner Lange Nacht der Wissenschaften (Long Science Night), June 2005 and June 2004.

The Fishery Game, Potsdamer Lange Nacht der Wissenschaften (Long Science Night), September 2003, and Brandenburg Girls & Boys Day, funded by the German Federal Ministry for Education and Research, May 2003.

### **Further Training**

Summer School of the Integrated Assessment Society (TIAS) on Stakeholder Participation and Model-Building in Sustainable Resource Management, Osnabrück, Germany, July 2005.

Facilitation and Presentation Techniques, University Potsdam, Germany, May 2005.

Summer School of the MONET Network of Excellence on Qualitative Reasoning, Bertinoro, Italy, May 2000.

### **Interests**

Travelling, walking, cooking, roleplaying.