

## Curriculum Vitae of Hermann Held

30<sup>th</sup> July 2024

### Personal Details:

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Professional Career:

- Since Sep 2010* Full Professor on Sustainability & Global Change at the Universität Hamburg at the Departments of Earth System Sciences and Economics.
- 2007 - 2010* Co-chair (together with Ottmar Edenhofer) of the new PIK-Research Domain “Sustainable Solutions” (since 2007, PIK’s research domains succeed former PIK-departments).
- 2003 - 2007* Head of a research group on Integrated Assessment of Climatic Change mitigation options (together with O. Edenhofer) in the programme „Nachwuchsgruppe in der fächerübergreifenden Umweltforschung“, funded by the Volkswagen Foundation, assessing various energy- and CO<sub>2</sub>-sequestration-options.
- 10/1999 - 08/2010* Postdoc and Senior Scientist at the Potsdam Institute for Climate Impact Research e.V. (PIK).
- 1998 - 1999* Feodor Lynen-Fellow of the Alexander von Humboldt-Foundation: Post-Doc with Y.-R. Shen at UC Berkeley on non-linear analysis of molecular surface structures; work at LBNL/Berkeley on risk assessment methodologies.
- 07/1996 - 10/1999* Research assistant with H. Walther on Quantum Chaos at the University of Munich (granted to leave for AvH-fellowship 05/1998 - 08/1999); ‘C1’ since 12/1997.
- 05/1996 - 06/1996* Scientific co-worker at the Max Planck Institute for Quantum Optics, Garching, Germany
- 05/1993 - 05/1996* PhD programme fellow by the Max Planck Society at the Max Planck Institute for Quantum Optics

Academic Training:

- 1996 PhD (summa cum laude) in Physics, University of Munich and Max Planck Institute for Quantum Optics Thesis: Quantum Chaos in Rydberg Atoms (with H. Walther).
- 1993 Diploma (distinction) at the University of Munich in Physics.
- 1990 - 1993 Main courses in physics and mathematics, and diploma thesis at the University of Munich.
- 1989 - 1990 Courses in physics, mathematics, statistics, and philosophy at ETH Zurich.
- 1988 “Vordiplom” at the University of Kiel (1,0).
- 1986 - 1989 Courses in physics, mathematics, chemistry, statistics and philosophy at the University of Kiel.
- 1986 - 1993 Scholarship by the German National Academic Foundation (“Studienstiftung des deutschen Volkes”).
- 1986 Selected member of the German team at the “International Physics Olympiad” in London.
- “Abitur” in Eutin, Schleswig-Holstein (1,0).

Main Interests:

- Decision-making under heterogenous uncertainty, in particular dynamically consistent target-based decision-making. Application for temperature targets, climate engineering, sustainable management of ecosystems.
- Integrated Assessment of climatic change mitigation options; interdisciplinary work on climate and economy.
- Models and quality standards at the academia-society interface

## Publications

### 1 Climate-related interdisciplinary contributions

#### 1.1 Peer-reviewed

- B. Blanz, R. Cormier, D. Swain, **H. Held**, *Adding the risk of stock collapse over time to stock assessments and harvest allocation decisions*. ICES Journal of Marine Science, fsae084. <https://doi.org/10.1093/icesjms/fsae084> (2024).
- M. Schauß, **H. Held**, S. Sprenger, *Die Darstellung von (Un-) Sicherheiten zum Thema Klimawandel in Schulbuchtexten für den Geografieunterricht*. GAIA-Ecological Perspectives for Science and Society, **31**(3), 167-174 (2022).
- M. Mohammadi Khabbazan, M. Stankoweit, E. Roshan, H. Schmidt, **H. Held**, *How can solar geoengineering and mitigation be combined under climate targets?* Earth System Dynamics **12**, 1529–1542, <https://doi.org/10.5194/esd-12-1529-2021> (2021).
- E. Roshan, M. M. Khabbazan, **H. Held**, *A Scheme for Jointly Trading-off Costs and Risks of Solar Radiation Management and Mitigation under Long-tailed Climate Sensitivity Probability Density Distributions*, Environmental Modeling & Assessment **26** (5), 823-836 (2021).
- R. A. M. Lauerburg, A. Kannen, B. Blanz, C. Möllmann, H. Rambo, **H. Held**, K. Gee, R. Diekmann, R. Cormier, V. Stelzenmüller, W. N. Probst, *Socio-ecological vulnerability to tipping points: a review of empirical approaches and their use for marine management*, Science of the Total Environment **705**, 135838 (2020).
- C. Li, **H. Held**, S. Hokamp, J. Marotzke, *Optimal temperature overshoot profile found by limiting global sea-level rise as a lower-cost climate target*, Science Advances, **6** (2), eaaw9490, DOI: 10.1126/sciadv.aaw9490 (2020).
- **H. Held**, *Cost Risk Analysis: How Robust Is It in View of Weitzman's Dismal Theorem and Underdetermined Risk Functions?* EAERE2019 article<sup>1</sup>, <http://www.fleximeets.com/eaere2019/?p=programme> (2019).

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<sup>1</sup> Rejection rate: ~50%

- F. Schreyer, **H. Held**, *How to formulate climate targets under uncertainty and anticipated future learning about climate sensitivity? – An axiomatic review of the strong sustainability paradigm*, EAERE2019 article<sup>2</sup>, <http://www.fleximeets.com/eaere2019/?p=programme> (2019).
- M. Mohammadi Khabbazan, **H. Held**, *On the Future Role of the Most Parsimonious Climate Module in Integrated Assessment*, *Earth System Dynamics*, **10**, 135-155, <https://www.earth-syst-dynam.net/10/135/2019/esd-10-135-2019.pdf> , <https://doi.org/10.5194/esd-10-135-2019> (2019).
- **H. Held**, *Cost Risk Analysis – Dynamically Consistent Decision-Making under Climate Targets*, *Environmental and Resource Economics*, **72** (1), 247-261, DOI 10.1007/s10640-018-0288-y, <http://link.springer.com/article/10.1007/s10640-018-0288-y> (2019).
- E. Roshan, M. Mohammadi Khabbazan, **H. Held**, *Cost-Risk Trade-off of Mitigation and Solar Geoengineering – Considering Regional Disparities under Probabilistic Climate Sensitivity*, *Environmental and Resource Economics*, **72** (1), 263-279, DOI 10.1007/s10640-018-0261-9, <http://link.springer.com/article/10.1007/s10640-018-0261-9> (2019).
- L. Stein, M. Mohammadi Khabbazan, **H. Held**, *Replacing temperature targets by subsidiary targets: How accurate are they? – Overshooting vs. economic losses*, WCERE2018<sup>3</sup> article, accepted article available from H. Held upon request (2018).
- C. Bien, R. Sassen, **H. Held**, *Die transformative Universität in der Gesellschaft – Ein Überblick über verschiedene Konzepte (The Transformative University in Society – A Review of Different Concepts)*, *GAIA* **26** (3), 259-268 (2017).
- A. Oschlies, **H. Held**, D. Keller, K. Keller, N. Mengis, M. Quaas, W. Rickels, H. Schmidt, *Indicators and Metrics for the Assessment of Climate Engineering*, *Earth's Future*, **5** (1), 49-58 (2017).
- E. Mechik, M. von Hauff, L. H. L. de Moura, **H. Held**, *Analysis of the Changes in Economic Activities of Brazilian Forest Communities after Methodical Support and Provision of Pre-Financing Capital*, *Journal of Tropical Forest Science*, **29** (2), 227–237 (2017).
- E. Roshan, M. Mohammadi Khabbazan, **H. Held**, *A Scheme For Jointly Trading Off Costs And Risks Of Solar Radiation Management And Mitigation Under Long-Tailed Climate Sensitivity Probability Density Distributions*, accepted EAERE2016<sup>4</sup> article (2016).

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<sup>2</sup> Rejection rate: ~50%

<sup>3</sup> Rejection rate: ~50%

<sup>4</sup> Rejection rate: ~50%

- R. Roth, D. Neubersch, **H. Held**, *Evaluating Delayed Climate Policy by Cost-Risk Analysis*, accepted EAERE2015<sup>5</sup> article, programme announcement: conference booklet p.59, accessed April 8, 2018; accepted article available from H. Held upon request (2015).
- H. S. Choi, U. A. Schneider, L. Rasche, J. Cui, E. Schmid, **H. Held**, *Potential effects of perfect seasonal climate forecasting on agricultural markets, welfare and land use: a case study of Spain*, *Agricultural Systems*, **133**, 177-189 (2015).
- D. Neubersch, **H. Held**, A. Otto, *Operationalizing climate targets under learning: An application of cost-risk analysis*, *Climatic Change*, **126** (3), 305-318, DOI 10.1007/s10584-014-1223-z (2014).
- **H. Held**, F.-W. Gerstengarbe, T. Pardowitz, J. G. Pinto, U. Ulbrich, K. Born, M. G. Donat, M. K. Karremann, G. C. Leckebusch, P. Ludwig, K. M. Nissen, H. Österle, B. F. Prahl, P. C. Werner, D. J. Befort, O. Burghoff, *Projections of global warming-induced impacts on winter storm losses in the German private household sector*, *Climatic Change*, **121**, 195-207, DOI 10.1007/s10584-013-0872-7 (2013).
- A. Engels, O. Hüther, M. Schäfer, **H. Held**, *Public climate-change skepticism, energy preferences and political participation*, *Global Environmental Change*, <http://dx.doi.org/10.1016/j.gloenvcha.2013.05.008> (2013).
- M. G. W. Schmidt, **H. Held**, E. Kriegler, A. Lorenz, *Stabilization Targets under Uncertain and Heterogeneous Climate Damages*, *Environmental & Resource Economics*, **54**, 79-99, DOI 10.1007/s10640-012-9582-2 (2013).
- A. Lorenz, E. Kriegler, **H. Held**, M. G. W. Schmidt, *How to measure the importance of climate risk for determining optimal global abatement policies?* *Climate Change Economics* **3** (1), 1250004 (28 pages), DOI: 10.1142/S2010007812500042 (2012).
- B. F. Prahl, D. Rybski, J. P. Kropp, O. Burghoff, **H. Held**, *Applying Stochastic Small-Scale Damage Functions to German Winter Storms*, *Geophys. Res. Lett.* **39** (6), doi:10.1029/2012GL050961 (2012).
- A. Lorenz, M. G. W. Schmidt, E. Kriegler, **H. Held**, *Anticipating Climate Threshold Damages*, *Environmental Modeling and Assessment*, **17** (1), 163-175, DOI: 10.1007/s10666-011-9282-2, in *Special Issue on Modeling Uncertainty in Energy Policy and the Economics of Climate Change* (2012).
- M. G. W. Schmidt, A. Lorenz, **H. Held**, E. Kriegler, *Climate Targets under Uncertainty: Challenges and Remedies*, *Climatic Change Letters*, **104** (3-4), 783-791, DOI 10.1007/s10584-010-9985-4 (2011).

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<sup>5</sup> Rejection rate: ~50%

- A. Lorenz, **H. Held**, E. Bauer, T. Schneider von Deimling, *Constraining ocean diffusivity from the 8.2 ka event*, *Climate Dynamics* **34**, 719-734, DOI 10.1007/s00382-009-0590-z (2010).
- A. Levermann, J. Schewe, V. Petoukhov, **H. Held**, *Basic mechanism for abrupt monsoon transitions*, *PNAS* **106** (49), 20572–20577, [www.pnas.org/cgi/doi/10.1073/pnas.0901414106](http://www.pnas.org/cgi/doi/10.1073/pnas.0901414106) (2009).
- E. Kriegler, J. Hall, R. Dawson, **H. Held**, H. J. Schellnhuber, *Imprecise Probability of Crossing Tipping Points in the Earth System Elicited from Experts*, *PNAS*, **109** (13), 5041-5046, [www.pnas.org/cgi/doi/10.1073/pnas.0809117106](http://www.pnas.org/cgi/doi/10.1073/pnas.0809117106) (2009).
- M. Scheffer, J. Bascompte, W. Brock, V. Brovkin, S. Carpenter, V. Dakos, **H. Held**, E. van Nes, M. Rietkerk, G. Sugihara, *Early warning signals for critical transitions*, *Nature*, **461**, 53-59, doi:10.1038/nature/08227 (2009).
- **H. Held**, E. Kriegler, K. Lessmann, O. Edenhofer, *Efficient Climate Policies under Technology and Climate Uncertainty*, *Energy Economics* **31**, S50–S61 (contribution in C. Böhringer, T. P. Mennel, T. F. Rutherford (Guest Eds.): *Technological Change and Uncertainty in Environmental Economics*), doi:10.1016/j.eneco.2008.12.012 (2009).
- V. Dakos, M. Scheffer, E. H. van Nes, V. Brovkin, V. Petoukhov, **H. Held**, *Slowing down reveals climatic tipping points*, *PNAS* **105** (38), 14308-14312. [www.pnas.org/cgi/doi/10.1073/pnas.0802430105](http://www.pnas.org/cgi/doi/10.1073/pnas.0802430105) (2008).
- **H. Held**, T. Augustin, E. Kriegler, *Bayesian Learning for a Class of Priors with Prescribed Marginals*, *International Journal of Approximate Reasoning*, **49**, 212-233, DOI 10.1016/j.ijar.2008.03.018, <http://dx.doi.org/10.1016/j.ijar.2008.03.018> (2008).
- T. M. Lenton, **H. Held**, E. Kriegler, J. Hall, W. Lucht, S. Rahmstorf, H. J. Schellnhuber, *Tipping elements in the Earth's climate system*, *PNAS*, **105** (6), 1786-1793, [www.pnas.org/cgi/doi/10.1073/pnas.0705414105](http://www.pnas.org/cgi/doi/10.1073/pnas.0705414105) (2008).
- **H. Held**, *Quantile-Filtered Bayesian Learning for the Correlation Class*. In: G. de Cooman, J. Vejnarová, M. Zaffalon (eds.), ISIPTA'07. Peer-reviewed<sup>6</sup> proceedings of the 5<sup>th</sup> International Symposium on Imprecise Probability (Praha, 17-19 July 2007): Theories and Applications. Praha: Action M Agency, 223-232, ISBN 987-80-86742-20-5 (2007).
- T. Schneider von Deimling, A. Ganopolski, **H. Held**, S. Rahmstorf, *How Cold was the Last Glacial Maximum?* *Geophys. Res. Lett.* **33**, L14709, doi:10.1029/2006GL026484 (2006).
- **H. Held**, T. Schneider von Deimling, *Transformation of Possibility Functions in a Climate Model of Intermediate Complexity*, *Advances in Soft Computing* **6**, 337-345 (2006).

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<sup>6</sup> Rate of rejection: 1/3 .

- T. Schneider von Deimling, **H. Held**, A. Ganopolski, S. Rahmstorf, *Climate sensitivity estimated from ensemble simulations of glacial climates*, *Climate Dynamics* **27**, 149-163, DOI 10.1007/s00382-006-0126-8 (2006).
- S. J. Friedmann, J. J. Dooley, **H. Held**, O. Edenhofer, *The low cost of geological assessment for underground CO<sub>2</sub> storage: Policy and economic implications*, *Energy Conversion and Management* **47** (13-14), 1894-1901 (2006).
- B. Knopf, **H. Held**, H. J. Schellnhuber, *Forced versus Coupled Dynamics in Earth System Modelling and Prediction*, *Nonlinear Processes in Geophysics* **12**, 311-320 (2005).
- E. Kriegler, **H. Held**, *Utilizing random sets for the estimation of future climate change*, *International Journal of Approximate Reasoning* **39**, 185-209 (2005).
- O. Edenhofer, **H. Held**, N. Bauer, *A regulatory framework for carbon capturing and sequestration within the post-Kyoto process*. In the peer-reviewed volume (I) by E. S. Rubin, D. W. Keith, C. F. Gilboy (eds.), *Proceedings of the 7<sup>th</sup> International Conference on Greenhouse Gas Control Technologies* (Vancouver, Canada, 5-9 September 2004). Amsterdam: Elsevier, 989-997 (2005).
- N. Bauer, O. Edenhofer, **H. Held**, E. Kriegler, *Uncertainty of the role of carbon capture and sequestration within climate change mitigation strategies*. In the peer-reviewed volume (I) by E. S. Rubin, D. W. Keith, C. F. Gilboy (eds.), *Proceedings of the 7<sup>th</sup> International Conference on Greenhouse Gas Control Technologies* (Vancouver, Canada, 5-9 September 2004). Amsterdam: Elsevier, 931-939 (2005).
- O. Edenhofer, K. Lessmann, N. Bauer, **H. Held**, *Climate protection! A new energy policy?* *Vierteljahreshefte zur Wirtschaftsforschung*, **74** (2), 137-147 (2005).
- **H. Held**, T. Kleinen, *Detection of climate system bifurcations by degenerate fingerprinting*, *Geophys. Res. Lett.* **31**, L23207, doi:10.1029/2004GL020972 (2004).
- W. Steffen, M. O. Andreae, B. Bolin, P. J. Crutzen, P. Cox, U. Cubasch, **H. Held**, N. Nakicenovic, R. Scholes, L. Talaue-McManus, B. L. Turner II, *Abrupt Changes: the Achilles Heels of the Earth System*, *Environment*, **46** (3), 9-20 (2004).
- M. Stroebe, M. Scheringer, **H. Held**, K. Hungerbühler, *Inter-comparison of multimedia fate models: Modes of transport, measures of persistence and long-range transport potential, and the remote state*, *Science of the Total Environment*, **321**, 1-20 (2004).
- J. A. Rial, R. A. Pielke Sr., M. Beniston, M. Claussen, P. Cox, **H. Held**, N. de Noblet-Ducoudre, R. Prinn, J. D. Salas, *Nonlinearities, Feedbacks and Critical Thresholds Within the Earth's Climate System*, *Climatic Change*, **65** (1)-(2), 11-38 (2004).



- E. Kriegler, **H. Held**, *Climate Projections for the 21<sup>st</sup> Century Using Random Sets*. In: J. M. Bernard, T. Seidenfeld, M. Zaffalon (eds.), Proceedings of the third international symposium on imprecise probabilities and their applications (Lugano, Switzerland, 14-17 July 2003, peer-reviewed), 345-360 (2003).
- **H. Held**, *Robustness of spatial ranges of environmental chemicals to changes in model dimension*, Stochastic Environmental Research and Risk Assessment, **17** (1)-(2), 20-41 (2003).
- T. Kleinen, **H. Held**, G. Petschel-Held, *The potential role of spectral properties in detecting thresholds in the Earth System*, Ocean Dynamics **53**, 53-63 (2003).
- **H. Held**: *Spherical spatial ranges of non-polar chemicals for reaction-diffusion type dynamics*, Applied Mathematics and Computation, **124** (1), 29-43 (2001).

## 1.2 Semi peer-reviewed

The following articles witnessed review by an internal peer group, however with significantly lower risk of rejection.

- **H. Held**, S. C. Aykut, C. Hedemann, C. Li, J. Marotzke, J. Petzold, U. A. Schneider, *Plausibility of model-based emissions scenarios*. in *Hamburg Climate Futures Outlook: Assessing the plausibility of deep decarbonization by 2050* (p. 21-28), <https://doi.org/10.25592/uhhfdm.9104> (2021).
- **H. Held**, A. Engels, J. Marotzke, D. Stammer, *Implications for climate futures*. In *Hamburg Climate Futures Outlook: Assessing the plausibility of deep decarbonization by 2050* (p. 63-64), <https://doi.org/10.25592/uhhfdm.9104> (2021).
- **H. Held**, *Der ökonomische Wert von Klimainformation: Zur Neuinterpretation von Klimazielen unter antizipiertem Lernen* in: *Unsicherheit als Herausforderung in der Wissenschaft – Reflexionen aus Natur-, Sozial- und Geisteswissenschaft*, Editors: N. Janich, L. Rhein, Series: *Wissen – Kompetenz – Text* Vol. **13**, Editors: C. Efung, B. Hufeisen, N. Janich, Peter Lang GmbH, Berlin, ISBN 978-3-631-76104-5 (2018).
- **H. Held**, *Entscheidungen unter Unsicherheit in komplexen Systemen* in: *Klimawandel in Deutschland – Entwicklung, Folgen, Risiken und Perspektiven*, Editors: Guy P. Brasseur, Daniela Jacob, Susanne Schuck-Zöller, 305-311, ISBN: 978-3-662-50396-6 (Print) 978-3-662-50397-3 (Online), SpringerOpen, [http://link.springer.com/chapter/10.1007/978-3-662-50397-3\\_30/fulltext.html](http://link.springer.com/chapter/10.1007/978-3-662-50397-3_30/fulltext.html) (2016).
- H. Kunreuther, S. Gupta, V. Bosetti, R. Cooke, V. Dutt, M. Ha-Duong, **H. Held**, J. Llanes-Regueiro, A. Patt, E. Shittu, E. Weber, *Integrated Risk and Uncertainty Assessment of Climate Change Response Policies*, IPCC AR5, WGIII, Chapter 2 (2014).

- K. Neuhoff, S. Dröge, O. Edenhofer, C. Flachsland, **H. Held**, M. Ragwitz, J. Strophschein, A. Türk and A. Michaelowa: *Translating model results into economic policies* RECIPE Working paper, available online at [www.pik-potsdam.de/recipe](http://www.pik-potsdam.de/recipe) (2009).
- **H. Held**, M. Kühn, *CO<sub>2</sub>-Speicherung – eine realistische Option?* In G. Altner, H. Leitschuh, G. Michelsen, U. E. Simonis, E. U. von Weizsäcker, *Jahrbuch Ökologie 2010: Umwälzung der Erde – Konflikte um Ressourcen* (among the top 10 of „Zukunftsliteratur“ according to the Robert-Jungk-Bibliothek, Salzburg), 206-216, Hirzel (2009).
- **H. Held**, *Economic impacts of ocean acidification: costs and savings*, Global Change NewsLetter **73**, 31 (2009).
- **H. Held**, O. Edenhofer, *CCS-Bonds as a superior instrument to incentivize secure carbon sequestration*. Energy Procedia, 4559-4566, **1** (1) (2009).
- T. Schneider von Deimling, **H. Held**, A. Ganopolski, S. Rahmstorf (2008), *Are paleo-proxy data helpful for constraining future climate change?* PAGES News (by PAGES International Project Office, Bern), **16** (2), 20-21 (2008).
- **H. Held**, O. Edenhofer, *Re-structuring the problem of Global Warming Mitigation: “Climate Protection” vs. “Economic Growth” as a false Trade-off*. In: G. Hirsch Hadorn, H. Hoffmann-Riem, S. Biber-Klemm, W. Grossenbacher-Mansuy, D. Joye, C. Pohl, U. Wiesmann, E. Zemp (eds.), *Handbook of Transdisciplinary Research*. Heidelberg: Springer, 191-204, ISBN: 978-1-4020-6698-6 (2008).
- E. Kriegler, **H. Held**, T. Bruckner, *Climate protection strategies under ambiguity about catastrophic consequences*. In: J. Kropp, J. Scheffran (eds.), *Advanced Methods for Decision Making and Risk Management in Sustainability Science*. New York: Nova Science, 3-42, ISBN: 978-1-60021-427-4 (2007).
- **H. Held**, O. Edenhofer, N. Bauer, *How to deal with risks of carbon sequestration within an international emission trading scheme*. In: *Proceedings of the 8<sup>th</sup> International Conference on Greenhouse Gas Control Technologies* (Trondheim, Norway, 19-22 June 2006). Issued on CD-ROM (ISBN-0-08-046407-6) by Elsevier/IEA GHG (2006).
- M. Claussen, **H. Held**, D. P. Schrag, *What do we know about potential modes of operation of the Quaternary Earth system?* In: H. J. Schellnhuber, W. C. Clark, P. J. Crutzen, M. Claussen, H. Held (eds.), *Earth System Analysis for Sustainability*. DahlemWorkshop Report 91. Cambridge, MA, USA: The MIT Press, 141-156 (2004).
- A. J. Watson, V. Brovkin, M. Claussen, P. Falkowski, **H. Held**, A. J. Payne, S. Rahmstorf, R. J. Scholes, D. P. Schrag, F. Sirocco, *Group Report: Possible States and Modes of Operation of the Quaternary Earth System*. In: H. J. Schellnhuber, W. C. Clark, P. J. Crutzen, M. Claussen, H. Held (eds.), *Earth System Analysis for Sustainability*. DahlemWorkshop Report 91. Cambridge, MA, USA: The MIT Press, 189-210 (2004).

- W. Steffen, M. O. Andreae, B. Bolin, P. J. Crutzen, P. Cox, U. Cubasch, **H. Held**, N. Nakicenovic, R. Scholes, L. Talaue-McManus, B. L. Turner II, *Group Report: Earth Dynamics in the Anthropocene*. In: H. J. Schellnhuber, W. C. Clark, P. J. Crutzen, M. Claussen, H. Held (eds.), *Earth System Analysis for Sustainability*. DahlemWorkshop Report 91. Cambridge, MA, USA: The MIT Press, 313-340 (2004).
- **H. Held**, H. J. Schellnhuber, *Evolution of perturbations in complex systems*. In: W. Steffen, A. Sanderson, J. Jäger, P. Matson, B. Moore III, F. Oldfield, K. Richardson, H. J. Schellnhuber, B. L. Turner II, P. D. Tyson, R. J. Wasson (eds.), *Global Change and the Earth System: A Planet Under Pressure*. The IGBP Book Series. Berlin, Heidelberg, New York: Springer, 145-147 (2004).
- H. J. Schellnhuber, **H. Held**, *How Fragile is the Earth System?* In: J. Briden, T. Downing (eds.), *Managing the Earth: the Eleventh Linacre Lectures*. Oxford: Oxford University Press, 5-34 (2002).
- H. J. Schellnhuber, A. Block, **H. Held**, M. K. B. Lüdeke, O. Moldenhauer, G. Petschel-Held, *Syndrome & Co.: Qualitative und semi-quantitative Ansätze in der Forschung zum Globalen Wandel*. Proceedings zu „Transsektorale Forschung zum Globalen Wandel“. Bonn, Frankfurt a. Main, New York: CAMPUS-Verlag, 49-96 (2001).

## 1.2 Further contributions

- **H. Held**, *Towards a Completed Cost Risk Analysis of the Climate Problem: Dealing with Consolidated Impacts and Updated Targets*, SSRN: <https://ssrn.com/abstract=4701971> or <http://dx.doi.org/10.2139/ssrn.4701971> (2024).
- V. Avakumović, V. Brovkin, **H. Held**, *What are the Maximally Possible Deviations from the Carbon Budget Approach?* EGU22-4748, Copernicus Meetings (2022).
- **H. Held**, *Die Lösung des Klimaproblems als Fallbeispiel einer Nachhaltigkeitstransformation* in C. Michaelis, F. Berding, *Berufsbildung für nachhaltige Entwicklung – Umsetzungsbarrieren und interdisziplinäre Forschungsfragen*, **39**, *Wirtschaft – Beruf – Ethik*, 19-34, wbv Media GmbH & Co. KG, Bielefeld, ISBN (Print): 978-3-7639-7009-4, ISBN (E-Book): 978-3-7639-7043-8, DOI: 10.3278/9783763970438 (2022).
- P. M. Link, J. Böhner, **H. Held**, J. Scheffran, *Energy Landscapes: Modeling of renewable energy resources with an emphasis on Northern Germany*, *Bulletin of the American Meteorological Society*, <https://doi.org/10.1175/BAMS-D-17-0295.1> (2018).

- **H. Held**, *Möglichkeiten und Grenzen des Wissenschaftsverständnisses in der Klimaökonomik* in U. Lüke, G. Souvignier (Eds.): *Wie objektiv ist Wissenschaft?*, WBG, Darmstadt, ISBN 978-3-534-74322-3, 179-198 (2017).
- **H. Held**, *Die Kosten des 2°-Ziels und seine klimapolitischen Herausforderungen*, in: Ulrich Blum, *Economic Governance und Ordonomik*, SPEEG (Series in Political Economy and Economic Governance) **10**, 177-188 (2017).
- **H. Held**, *The 2°C climate policy goal: Chances & Challenges*, in: Hardo Bruhns, *Energie: Forschung und Perspektiven*, Proceedings of the DPG (German Physical Society) Annual Spring Meeting 2016, Regensburg, 35-51, Arbeitskreis Energie / DPG (2016).
- **H. Held**, *Climate targets and cost effective climate stabilization pathways* in L. Cifarelli, F. Wagner (Eds.): *New Energy: Basic Concepts and Forefront Ideas*, Lecture Notes Joint EPS-SIF International School on Energy, Course 2, 17-23 July 2014, Villa Monastero, Varenna, Lake Como, European Physical Society, Società Italiana di Fisica, ISSN 2282-4928, ISBN 978-88-7438-094-7, 305-322 (2015).
- **H. Held**, T. Schramme, A. Bassen, J. Frost, A. Horstmann, in dialogue with Team 1 of „Kompetenzzentrums Nachhaltige Universität“, *Positionspapier des Kompetenzzentrums Nachhaltige Universität – Ideen zur Ausgestaltung der Universität Hamburg als Universität für eine nachhaltige Zukunft*, <https://www.nachhaltige.uni-hamburg.de/de/downloads/positionspapier-knu-nachhaltige-zukunft-07-07-13.pdf> (2013).
- **H. Held**, *Climate policy options and the transformation of the energy system* in L. Cifarelli, F. Wagner, D. S. Wiersma (Eds.): *New Strategies for Energy Generation, Conversion and Storage*, Lecture Notes Joint EPS-SIF International School on Energy, Course 1, 30 July - 4 August 2012, Villa Monastero, Varenna, Lake Como, European Physical Society, Società Italiana di Fisica, ISSN 2282-4928, ISBN 978-88-7438-079-4, 13-28 (2013).
- **H. Held**, U. Schneider, *Das können wir uns leisten*, Interview-Artikel in *Klima im Fokus*, Ein Magazin des Hamburger Exzellenzclusters „Integrated Climate System Analysis and Prediction“ (CliSAP), 15-19 (2013).
- **H. Held**, *Natürliche Ressourcen. Bedrohung der Ökologie, intra- und intergenerationelle Gerechtigkeit am Beispiel des anthropogen getriebenen Klimawandels*, in M. Heimbach-Steins (Ed.): *Ressourcen, Lebensqualität, Sinn – Gerechtigkeit für die Zukunft denken*, Gesellschaft – Ethik – Religion, ISBN 978-3-506-77684-6, Ferdinand Schöningh, Paderborn, München, Wien, Zürich, Schriften des Instituts für Christliche Sozialwissenschaften **1**, 67-72 (2013).
- **H. Held**, *Wandel und Bestand – Spielräume und Grenzen*, in „*Letzte Ausfahrt: Wandel?*“, *Dokumentation Hamburger Gespräche für Naturschutz der Michael Otto Stiftung*, Hamburg 2012, 10-15 (2013).

- **H. Held**, *Anthropogener Klimawandel als Herausforderung und Chance von biblischer Dimension*, in D. v. Quistorp (Ed.): *Kirche schützt Klima – Beiträge zur Bewahrung der Schöpfung und Förderung eines umweltfreundlichen Lebensstils*, Evangelische GemeindeAkademie Blankenese, fenestra-verlag, 29-40 (2012).
- **H. Held**, *Enabling systemic climate innovation*, Public Service Review: European Science & Technology; **11**, 254-255 (2011).
- **H. Held**, *Dealing with Uncertainty – From Climate Research to Integrated Assessment of Policy Options in Climate Change and Policy* in: *The Calculability of Climate Change and the Challenge of Uncertainty*, Gramelsberger, Gabriele; Feichter, Johann (Eds.), ISBN 978-3-642-17699-9, 113-126, (2011).
- M. D. Mastrandrea, C. B. Field, T. F. Stocker, O. Edenhofer, K. L. Ebi, D. J. Frame, **H. Held**, E. Kriegler, K.J. Mach, P.R. Matschoss, G.-K. Plattner, G. W. Yohe, and F. W. Zwiers, 2010: *Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties*. Intergovernmental Panel on Climate Change (IPCC). <http://www.ipcc.ch> (2010).
- **H. Held**, *Der Klimawandel: Handlungsdruck & kosteneffiziente Handlungsoptionen*, energie | wasser-praxis (members' journal of the DVGW – the German Technical and Scientific Association for Gas and Water) ISSN 1436-6134, 9/2010, 52-54 (2010).
- T. Bruckner, O. Edenhofer, **H. Held**, M. Haller, M. Lüken, N. Bauer, *Robust Options to Combat Climate Change*, in *Global Sustainability – A Nobel Cause*, Schellnhuber, H. J., M. Molina, N. Stern, V. Huber and S. Kadner (eds.), Cambridge University Press, Cambridge, United Kingdom and New York, USA, ISBN-13:9780521769341, 189-204 (2010).
- M. Schmidt, A. Lorenz, **H. Held**, E. Kriegler, *Climate Targets in an Uncertain World*. ClimateChangeS, <http://www.economicsclimatechange.com/2009/08/climate-targets-in-uncertain-world.html> (2009).
- J. Bijma, M. Barange, L. Brander, G. Cardew, J. de Leeuw, R. Feely, L. Fernand, G. Ganssen, J.-P. Gattuso, M. G. Dávila, P. Haugan, **H. Held**, M. Hood, T. Kiefer, A. Kozyr, J. Orr, H. O. Pörtner, K. Rehdanz, G.-J. Reichart, P. G. Rodhouse, F. Schmidt, M. Thorndyke, C. Turley, E. Urban, P. Ziveri, E. Liatou, B. Avril, D. Turk, *Impacts of Ocean Acidification*, European Science Foundation, Science Policy Briefing **37**, 1-12 (2009).
- **H. Held**, *Grußwort des Potsdam-Instituts für Klimafolgenforschung* in I. Anderson: *Umweltbericht 2008/2009 – Klimawandel und Biodiversität der RheinLand Versicherungsgruppe* VF 0058 – 06/2009, p.7 (2009).

- O. Edenhofer, G. Luderer, C. Flachsland, H.-M. Füßel, Contributing Authors: A. Popp, G. Feulner, B. Knopf, **H. Held**, *A Global Contract on Climate Change*, Policy paper prepared for the conference *A Global Contract Based on Climate Justice: The Need for a New Approach Concerning International Relations* in Brussels, 11 November 2008, PIK (2008).
- **H. Held**, *Klimaschutz ist nicht teuer*. Proceedings of the 1<sup>st</sup> Potsdam Climate Conference 2006. Published by PIK e. V., Honda Motor Europe (North) GmbH, EUROPARC Deutschland e.V. (2007).
- **H. Held**, E. Kriegler, T. Augustin, *Bayesian Learning for a Class of Priors with prescribed Marginals*. Discussion paper, **488** statistic-server <http://www.stat.uni-muenchen.de/sfb386/> (2006).
- M. Claussen, A. Berger, **H. Held**, *A survey of hypotheses for the 100 ka cycle*. In: F. Sirocko, F., M. Claussen, M. Sánchez-Goni, T. Litt (eds.), *The climate of past interglacials. Developments in Quaternary Science*, 7, Elsevier Publisher, 29-35 (2006).
- O. Edenhofer, **H. Held**, N. Bauer, *Wege zu einem nachhaltigen Energiesystem. Ein ordnungspolitischer Rahmen für die Deponierung von Kohlenstoff in geologischen Formationen* In: B. Johnke, J. Scheffran, K. Soyez (eds.), *Abfall, Energie und Klima: Wege und Konzepte für eine integrierte Ressourcennutzung*. Berlin: Erich-Schmidt-Verlag, 26-40 (2004).
- W. Steffen, M. O. Andreae, B. Bolin, P. J. Crutzen, P. Cox, U. Cubasch, **H. Held**, N. Nakicenovic, R. Scholes, L. Talae-McManus, B. L. Turner II, *Abrupt Changes: the Achilles Heels of the Earth System*. IIASA-report RR-04-006. Adapted from *Environment*, **46** (3), 9-20 (2004).
- H. J. Schellnhuber, **H. Held**, *Definition of „Erdsystem“ und „Erdsystemanalyse“*. In: E. U. Simonis, *Ökolexikon*. München: C. H. Beck, 69-70 (2003).
- O. Edenhofer, **H. Held**, C. Jaeger, *Langfristige Optionen einer globalen Energie- und Umweltpolitik*. In: W. Hauser (ed.), *Klima. Das Experiment mit dem Planeten Erde*. Stuttgart: Theiss Verlag, 370-383 (2002).
- O. Edenhofer, **H. Held**, C. C. Jaeger, *Langfristige Optionen einer globalen Energie- und Umweltpolitik*. In: W. Hauser (ed.), *Klima. Das Experiment mit dem Planeten Erde*. In the Catalogue for the Special Exhibition on Climate and Energy by the German Museum (7 November 2002-15 June 2003), Munich, 370-383 (2002).
- **H. Held**, *Umgang mit Unsicherheit am Beispiel wissenschaftlicher Prognostik. Eine Einführung*. In: E. Nuissl (ed.), *Wenn Wissenschaft mehr als Wissen schafft*. Bonn: Lemmens Verlags und Mediengesellschaft mbH, 122-123 (2002).

- **H. Held**, *Semianalytical Spatial Ranges and Persistences of Non-Polar Chemicals for Reaction-Diffusion Type Dynamics*, in *Integrative Systems Approaches to Natural and Social Dynamics*. Proceedings of the International Conference System Science 2000 (Osnabrück, 20-22 March 2000). Springer, 275-285 (2001).
- Since 2001: Numerous citeable abstracts at EGS/EGU assemblies in Nice/Vienna (annually) on stochastic climate modelling, early warning of bifurcations and integrated assessment of mitigation options under uncertainty.

## 1.4 Books

- H. J. Schellnhuber, P. J. Crutzen, W. C. Clark, M. Claussen, **H. Held** (eds.), *Earth System Analysis for Sustainability*. Cambridge, MA, USA: The MIT Press, 454 pp. (2004).

## 1.5 Licences

- M. Scheringer, M. Stroebe, **H. Held**, Lizenz ETH Zürich / PIK: *Chemrange 2.1 – A Multimedia Transport Model for Calculating Persistence and Spatial Range of Organic Chemicals*, <http://lrcmail.ethz.ch/hungerb/research/product/chemrange.html> (2002).
- M. Scheringer, **H. Held**, M. Stroebe, Lizenz ETH Zürich / PIK: *Chemrange 1.0 – A Multimedia Transport Model for Calculating Persistence and Spatial Range of Organic Chemicals*, <http://lrcmail.ethz.ch/hungerb/research/-product/chemrange.html> (2001).

## 2 Contributions in Physics

### 2.1 Peer-reviewed

- **H. Held**, A. Lvovsky, X. Wei, Y. R. Shen, *Bulk contribution from isotropic media in surface sum-frequency generation*, Phys. Rev. B **66**, 205110 (2002).
- Y. L. Yeh, C. Zhang, **H. Held**, S. H. Lin, Y. R. Shen: *On the surface structure of non-hydrogen bonding liquids*, J. Chem. Phys. **114**, 1837-1843 (2001).

- X. Wei, S.-C. Hong, A. I. Lvovsky, **H. Held**, Y. R. Shen, *Evaluation of surface vs. bulk contributions in sum-frequency vibrational spectroscopy using reflection and transmission geometries*, Journ. Phys. Chem. B, **104**, 3349-3354 (2000).
- **H. Held**, W. Schweizer: *Beyond nearest-neighbor spacing distributions: A new indicator for core-induced chaos*, Phys. Rev. Lett. **84**, 1160-1163 (2000).
- **H. Held**, J. Schlichter, G. Raithel, H. Walther: *Observation of level statistics and Heisenberg-time orbits in Diamagnetic Rydberg Atoms*, Europhys. Lett., **43**, 392-397 (1998).
- G. Raithel, **H. Held**, L. Marmet, H. Walther, *Rubidium Rydberg atoms in strong static fields*, J. Phys. B **27**, 2849-2866 (1994).
- L. Marmet, **H. Held**, G. Raithel, J. A. Yeazell, H. Walther, *Observation of Quasi-Landau Wave Packets*, Phys. Rev. Lett. **72**, 3779-3782 (1994).
- J. A. Yeazell, G. Raithel, L. Marmet, **H. Held**, H. Walther, *Observation of Wave Packet Motion along Quasi-Landau Orbits*, Phys. Rev. Lett. **70**, 2884-2887 (1993).

## 2.2 Further contributions

- **H. Held**, J. Schlichter, H. Walther, *Quantum Chaos in Rydberg Atoms*. In: J. Parisi, S. C. Müller, W. Zimmermann (eds.), *A Perspective Look at Nonlinear Media in Physics, Chemistry, and Biology*. Berlin: Springer, 1-18 (1995).
- **H. Held**, L. Marmet, H. Walther, *Observation of Quasi-Landau Wave Packets*, Proc. XII. Int. Conf. on Laser Spectroscopy, Capri, 289-290 (1995).

## Fundraising ( $\geq 20000$ €)

- Co-lead (together with GERICS – Climate Service Center Germany) of HICSS (Helmholtz-Institut Climate Service Science)-project ‘Normativity, Objectivity and Quality Assurance of Transdisciplinary Processes’, 300000€ total amount, 2019-2022.
- Lead of UHH contribution within BMBF-FONA-funded ‘Spatial and temporal analysis of tipping points of the socioecological system of the North Sea (German EEZ) under different management scenarios’ (SeaUseTip); main phase, 440000€ for FNU, 2019-2022.



- Lead Author in CLICCS-proposal ('Excellence Cluster' on Climate, Climatic Change and Society), funded 2019-2025; inter alia co-lead (together with Andreas Lange and Jochem Marotzke) of CLICCS-B5 'Coping with Climate-Related Uncertainties and Variabilities' (<https://www.cliccs.uni-hamburg.de/research/theme-b/b5.html>); one postdoc position 2019-2021 and one 65% position 2019-2022 for FNU.
- Lead of UHH contribution within BMBF-FONA-funded 'Spatial and temporal analysis of tipping points of the socioecological system of the North Sea (German EEZ) under different management scenarios' (SeaUseTip); precursory phase, 43000€ for FNU, 2017-2018.
- Lead of DFG-proposal 'Climate Engineering in the Context of Mitigation Strategies: Illusion, Complement, or Substitute?' (CEMICS; ~0.7M€, hereby ~160000€ for Research Unit 'Sustainability & Global Change') in the DFG priority programme 'Climate engineering – Risks, Challenges, Opportunities?', 2016-2018.
- Participants in BMBF-FONA (Forschung für Nachhaltige Entwicklungen – Research for Sustainable Development) project 'North Sea – Observation and Assessment of Habitats (NOAH2, 40000€ for Research Unit 'Sustainability & Global Change') – An integrated approach to evaluate utilization, status, performance and provision of services of seafloor habitats and ecosystems in the German Bight', 2016-2017.
- Pilot project on the actual & potential role of the university for sustainable development (together with R. Sassen), funding by KNU (the Universität Hamburg's competence centre for a sustainable university), 50000€, 2015-2016.
- Participants in BMBF-FONA (Forschung für Nachhaltige Entwicklungen – Research for Sustainable Development) project 'North Sea – Observation and Assessment of Habitats (NOAH, ~0.1M€ for Research Unit 'Sustainability & Global Change') – An integrated approach to evaluate utilization, status, performance and provision of services of seafloor habitats and ecosystems in the German Bight', 2013-2016.
- Lead of DFG-proposal 'Climate Engineering in the Context of Mitigation Strategies: Illusion, Complement, or Substitute?' (CEMICS; ~0.5M€, hereby ~0.1M€ for Research Unit 'Sustainability & Global Change') in the DFG priority programme 'Climate engineering – Risks, Challenges, Opportunities?', 2013-2015.
- Lead Author in CliSAP2-proposal ('Excellence Cluster' on Integrated Climate System Analysis and Prediction – Excellence Cluster 177), funded 2012-2017; ~0.7M€ for Research Unit 'Sustainability & Global Change'.
- Co-author of NSF-network 'Sustainable Climate Risk Management' (SCRiM)
- Co-author of DFG priority programme 'Climate engineering – Risks, Challenges, Opportunities?' (SPP 1689, 5.7M€), 2013-2015.

- Thesis grant from the EIT-Climate-KIC (~0.2M€) – 1 PhD student since 2011.
- Affiliate partner of proposal on 3<sup>rd</sup> phase of International Max Planck Research School on Earth System Modelling (<http://www.earthsystemschool.mpg.de/> – funded until 2017; ~2M€/yr) – 1 PhD student since 2011.
- Acquisition of the FP7-project GLOBAL-IQ on the economics of climate impacts and adaptation (handed over to successors at PIK in summer 2010), 0.4M€ for PIK.
- Coordinator for Germany in an EIT-KIC-proposal on climate April-August 2009; application for 120M€ approved 16<sup>th</sup> December 2009 (PIK together with ETHZ, Imperial College, IPSL/ParisTech, U Utrecht; German node: TU Berlin, TU Munich, GFZ Potsdam; when distributing among 5 nations and 4 national partners and discounting by a factor 3 because uncertainty remains how much will ultimately enter the KIC and how it will be distributed, ~1M€ can be attributed).
- Lead of a project on the economic value of geoscientific information within BMBF-project PROGRESS; 150k€ (2009-2012)
- Lead of a project together with PIK's meteorology group (Prof. Gerstengarbe), Free University Berlin (Prof. Ulbrich) and University of Cologne (Prof. Kerschgens), funded by the German Insurance Association, on the effects of climate change on losses insured by the German insurance sector, 2008-2009 (-2011) – total volume: 1.1M€.
- Lead of a project together with ZEW Mannheim (Dr. Löschel) and University of Karlsruhe (Prof. Werner), funded by the German Insurance Association, on the effects of climate change on future markets 2008-2010 – total volume: 300k€.
- Participation in the EU-Project CLIMATE-COST under W. Cramer; personal slot for uncertainty & impacts of tipping points; 7 person months; kick-off in 2008.
- DFG-project “Data-based analysis of key feedback loops in the climate system for constraining uncertainty in climate projections” together with T. Schneider von Deimling under S. Rahmstorf for 2006-2009, 1 Postdoc + 1 Scientific Assistant.
- Proposal for a multi-institutional consortium 2006-2011 Earth System Research Partnership towards a German Network of Excellence in Earth System Modelling (ENIGMA); co-authorship with MPI Hamburg, MPI Jena, MPI Mainz, PIK; 5 Postdocs for 5 years in total (2006-2011) by the Max Planck Society– extension for 2 years warranted in 2009 – 1 Postdoc attributed to HH.
- Lead of research group on Integrated Assessment of Climatic Change mitigation options (together with O. Edenhofer) in the programme “Nachwuchsgruppe in der fächerübergreifenden Umweltforschung”, funded by the Volkswagen Foundation for 2003-2007; 2 Postdocs, 2 PhD students.

- BMBF-project on the Propagation of Uncertainty under H. J. Schellnhuber for 2001-2004, 2 PhD students.
- Scientific office for IGBP-GAIM (International Geosphere Biosphere Programme – Global Analysis, Integration and Modelling) under H. J. Schellnhuber for 2000-2003; 1 Postdoc.

## Honours, Awards

- ‘Highly commended paper 2013’ by Environmental and Resource Economics (ERE): Matthias G. W. Schmidt, Hermann Held, Elmar Kriegler, Alexander Lorenz, (2013) Climate Policy Under Uncertain and Heterogeneous Climate Damages, Environmental and Resource Economics, January 2013, Volume 54, Issue 1, pp 79-99

## Participation in Hearings & Expert Workshops

- |              |   |
|--------------|---|
| 22. 8. 2022  | „IPCC AR6 WGIII“, BSH-Talk  |
| 25. 8. 2021  | Input presentation at Nachhaltigkeitsforum Hamburg – Klimastammtisch „Generationengerechtigkeit und CO <sub>2</sub> -Budget“ (virtuell)                                       |
| 12. 3. 2018  | Interview by K. J. Grate in the context of the interview series ‘How do organizations in Germany deal with sustainability?’, Lewis & Clark College and LMU Munich             |
| 12. 2. 2018  | Interview by A. Kause (Sustainability Research Institute & Priestley International Centre for Climate in Leeds) on the uncertainty treatment by IPCC AR5                      |
| 19. 6. 2017  | ‘Die Kosten des 2°-Ziels und seine klimapolitischen Herausforderungen „seit Trump“’, HIC (Hanseatischer Ingenieurs Club e.V.)-Mitgliedertreffen Hamburg, Nordakademie Hamburg |
| 20. 10. 2016 | ‘Sustainably Solving the Climate Problem’, in ‘Green Talents – International Forum for High Potentials in Sustainable Development’ @ CEN, BMBF organized visit                |
| 20. 6. 2016  | ‘Der Umgang der Klimaökonomie mit dem Klimaproblem’, Forschungskolleg „Zukunft menschlich gestalten“ der Universität Siegen, Sitzung abgehalten in Hamburg                    |

13. 6. 2016 ,Das Klimaproblem unter Unsicherheit lösen: Vorsorge der Natur – Würdigung des Unternehmertums‘, Akademie (der Wissenschaften) im Gespräch: Wie angesichts von Risiken und Unsicherheiten entscheiden? Hamburg
26. 4. 2016 ,Globale Klimaziele und deren Erreichbarkeit: Herausforderungen und Lösungsmöglichkeiten‘, 9. EID Kraftstoff-Forum, Hamburg
30. 10. 2015 ,Entscheidung unter heterogener Unsicherheit am Beispiel einer nachhaltigen Gestaltung des Klimaproblems‘, Hamburger Akademie der Wissenschaften
14. 1. 2015 ,Der jüngste Bericht des Weltklimarats: Handlungsmöglichkeiten gegen den Klimawandel‘, Evangelische GemeindeAkademie Blankenese
2. 6. 2014 Input to ,Die Studiengruppe für Globale Zukunftsfragen‘ at Federal Parliament, Berlin
7. 2. 2014 Opening presentation ,Unser Umgang mit dem Klimaproblem Hemmnisse und Lösungen‘, Carbon Performance Improvement Initiative, Hamburg
6. 12. 2013 Opening presentation ,Wettbewerb und Kooperation – unser Umgang mit dem Klimaproblem‘, Carbon Performance Improvement Initiative, Hamburg
27. 11. 2013 Input on visions how to transform the Universität Hamburg into a university for a sustainable future, KNU@Wissenschaftscafe, Hamburg
1. 11. 2013 Input presentation ‘Pluralismus in der Klimaökonomik’ and subsequent panel ,Darf, muss und wie kann die Natur ökonomisch inwertgesetzt bzw. kommodifiziert werden?’ Hamburger Wissenschaftskongress der Pluralen Ökonomik, Arbeit & Umwelt, 31.10.13 - 3.11.13
10. 5. 2013 ‘CCS: ein notwendiger und handhabbarer Bestandteil zur Umsetzung des 2°-Limits?’ Opening lecture, seminar 10. - 11. Mai 2013 by ,Evangelische Bildungsstätte auf Schwanenwerder’: ,Hoffnungsträger CO2-Speicherung?-Perspektiven einer Brückentechnologie zum Klimaschutz‘, Berlin
12. 11. 2012 Presentation and subsequent discussion of ‘The thinking behind renewable energy – climate economic aspects from the global, the EU, and the German perspective’, Friedrich-Naumann-Stiftung: Climate Change and Resource Management – Is There a Liberal Approach? 4-16 November 2012, presentation given at KlimaCampus, Hamburg
2. 11. 2012 Presentation and subsequent discussion of ‘The responsibility of academia and politics exemplified on the climate problem’, Assembly of ‘Bundesarbeitsgemeinschaft Wissenschaft, Hochschule, Technik’ of the Green Party (federal level), Hamburg

3. 10. 2012 Presentation of ‘Cluster of Excellence Integrated Climate System Analysis and Prediction at KlimaCampus Hamburg’, Erasmus Mundus Workshop on Climate Change and Sustainable Solutions, October 3-4, 2012, Brussels
16. 6. 2012 Vortrag ‘Nachhaltige Entwicklung am Beispiel möglicher Lösungen des Klimaproblems’, Wissenschaftliche Arbeitsgruppe für weltkirchliche Aufgaben der Deutschen Bischofskonferenz, Jacob-Spener-Haus, Frankfurt am Main
24. 4. 2012 Moderation of press conference ‘Reducing greenhouse gas emissions: renewable energy & CO<sub>2</sub> storage’, EGU 2012, Vienna
28. 3. 2012 Dinner speech with the 2° Initiative ‘Die Lösung des Klimaproblems: Was können gemeinsame Leuchtturmprojekte von Unternehmen und Wissenschaft dazu beitragen?’ (‘Solving the climate problem: How could joint flagship projects by enterprises and science contribute?’), Berlin
27. 9. 2011 ‘„Volkswirtschaftliche Randbedingungen für Lösungen des Klimaproblems“ (‘‘Economic boundary conditions for solutions of the climate problem’’), invited presentation & round table discussion at ‘Klimafinanzgipfel im Rahmen der dritten Hamburger Klimawoche’, Handelskammer Hamburg
22. 9. 2011 ‘„Klimawandel und dessen versicherungstechnische Folgerungen“ (‘‘Climatic change and its consequences for insurance products’’) – invited talks at info-workshop of GDV, NH Köln Mediapark, Cologne, Germany
24. 5. 2011 ‘„Gemeinsame Ziele verlangen vernetztes Handeln. Wie Wissenschaft, Wirtschaft und Politik dem Klimawandel begegnen können.“ (‘‘Shared goals require networked action. How science, economy and politics can respond to climatic change.’’) Invited talk at the Climate Conference of the German Insurance Industry, Humboldt Carré, Berlin
24. 2. 2011 ‘„Die Ökonomie des Klimawandels“ (‘‘The economics of climatic change’’) – invited presentation at a workshop ‘Climate Protection in the Supply Chain’ of the Otto Group, Hamburg
2. 2. 2011 12. meeting of AG ‘Klimawandel – Produkte und Lösungen’, GDV, Berlin
14. 1. 2011 Talks on the macroeconomic role of CCS and CCS-bonds at a CCS-workshop by GDV, Berlin, in the presence of ‘Projektgruppe CCS’ und ‘Kommission Haftpflicht-Betrieb’.
1. 12. 2010 Invited presentation & panel ‘Der Klimawandel und das Energiesystem: kosteneffiziente Handlungsoptionen’ at gat 2010 Stuttgart
23. 11. 2010 Discussion input at ‘Climate change symposium’ by MunichRe, Munich

22. 11. 2010 “Vorreiterrolle von D/EU bei der Verminderung sowie Internationale Dimension der Anpassung an den Klimawandel”, presentation & panel discussion at „Vor Cancún – Aktueller Stand der Klimaforschung“ by Deutsches Klima Konsortium, held in Berlin.
10. 11. 2010 Invited presentation ‘Potential Risks and Benefits of Geo-Engineering in the Context of Global Warming Mitigation Options’ at the Annual Meeting of Action by Churches Together, Hotel Dietrich Bonhoeffer, Berlin
- Since Nov. 2010 Wvgw-article (abovementioned) on energy economics offered by AKS-Network (Access to Sustainable Knowledge – [www.ask-eu.de](http://www.ask-eu.de))
4. 10. 2010 GDV-invited presentation of project results to association members (‘Fachveranstaltung *Die Auswirkungen des Klimawandels auf die Versicherungswirtschaft*’), Berlin
8. 6. 2010 Input at Round-Table-Conference on the “Rotterdam Climate Initiative” in the Dutch embassy, Berlin
2. 6. 2010 Invited presentation & panel „Der Klimawandel: Handlungsdruck & kosteneffiziente Handlungsoptionen“, DVGW (Deutscher Verein des Gas- und Wasserfaches e.V. (German Technical and Scientific Association for Gas and Water))-Tagung „Diskurs 2010 Klimawandel und Gasversorgung – Zeit für Technik und Innovationen“, DLR, Köln, Germany
21. 5. 2010 GDV-invited presentation „Zwischenstand & Gesamtschau zu den PIK-Studien I & II“, 6. Sitzung des Lenkungsausschusses Klimawandel Munich Re, Munich
29. 4. 2010 Panel contribution „Der Klimawandel: Herausforderungen & kosteneffiziente Handlungsoptionen“, Forum Europäische Union – Lateinamerika und die Karibik; Technologiekoooperation, Erneuerbare Energien und Energieeffizienz; Rahmenbedingungen – Strategien – Perspektiven, 29. und 30. April 2010, Berlin, Auswärtiges Amt
8. 3. 2010 GDV-invited presentation „Zwischenstand & Gesamtschau zu den PIK-Studien I & II“, Projektsteuerungsgruppe Sach, GDV-Zentrale Berlin
25. 2. 2010 “Klimaschutz nach Kopenhagen: Wie investieren unter Unsicherheit?“ in the presence of Silke Lautenschäger, Hessian Secretary of the Environment, Energy, Agriculture and Consumer Protection, as well as Thomas Schmid, Präsident des Hessischen Landesamtes für Umwelt und Geologie, Erster Hessischer Klimaempfang Adam-Opel-Haus, Rüsselsheim, Germany
14. 12. 2009 „A Global Contract on Climate Change“, Visitors Program of the Federal Republic of Germany Program for Presidents and Prime Ministers of Pacific Island Countries, Dialogue on Climate Change at the Invitation of the Federal

Foreign Office, held at PIK

2. 12. 2009 Talk „Aktuelle Entwicklungen in der Klimaforschung“, GDV-Sachtag Berlin, 02./03.12.2009
2. 12. 2009 Talk „Der Klimawandel und Klimaziele – Einflüsse auf Stromerzeugungs- und Transport-Szenarien“, EUROFORUM-Konferenz „Das Stromnetz der Zukunft – Szenarien, technische Innovationen und politische Zwänge“, 2. und 3. Dezember 2009, Hotel Palace Berlin
6. 7. 2009 Talk ‘Kostenoptimale Investitionsänderungen durch Klimapolitik’, Führungskräftekonferenz von Hamburg@work | HWF und IBM: ‚Smarter Norden – Innovation für den Norden –‘ IBM Hamburg
1. 7. 2009 Participation in panel discussion during the “Energie- und Klimaseminar” by Vattenfall, Berlin
25. + 26. 6. 2009 Input at 15. Symposium “E.ON Ruhrgas im Dialog mit Energie-Wirtschaftswissenschaftlern”, Hamburg
23. 6. 2009 “Strukturelemente für den Kopenhagen-Prozess”, Lokalkomiteetreffen AIESEC e.V., TU Berlin
19. 5. 2009 “Antrag auf einen KIC zu Climate Change Mitigation & Adaptation”, Workshop EIT-KICs „Klima“ und „Energie“ Umweltforum, Berlin
- 20.-21. 4. 2009 Input at workshop on geo-engineering by the International Risk Governance Council at the The Calouste Gulbenkian Foundation, Lisbon
26. 3. 2009 Representing PIK at Parlamentarischer Abend zu “Wettbewerbsauswirkungen der Abscheidung und Versenkung von CO<sub>2</sub> (CCS)”, Kaisersaal der Parlamentarischen Gesellschaft, Berlin
25. 3. 2009 Public lecture on PIK’s contribution to the project “Climate Change and Justice” with MISEREOR, MunichRe, IGP & subsequent public panel in the Katholische Akademie Hamburg, with Erzbischof W. Thissen present
26. 2. 2009 “The climate problem and its solution”, talk at the Lufthansa Cargo-Climate-Care Conference, Maritim Hotel, Frankfurt am Main, Germany
30. 1. 2009 “Strukturelemente einer kostengünstigen Lösung des Klimaproblems”, input at planning meeting of stiftung neue verantwortung, Berlin
9. 12. 2008 “Tipping Elements in the Earth’s Climate System”; panel contribution at COP-14 side event “The value of fast-track mitigation: more innovation, fewer tipping points!” by Fed. States of Micronesia (chaired by Durwood Zaelke, President IGSD), Poznan, Poland

30. 10. 2008 „Klimawandel als Herausforderung für die Entwicklungspolitik: vor welchen Problemen stehen wir und was kann die Entwicklungspolitik zur Lösung beitragen?“, Vortrag auf Klausur der Katholischen Zentralstelle für Entwicklungshilfe, Edith-Stein-Exerzitenhaus, Siegburg
24. 10. 2008 “Warum wir eine integrierte Betrachtung von Klimaschutz und Armutsbekämpfung brauchen – Eckpunkte eines Global Deals gegen Klimawandel und Armut”, Vortrag auf der Sitzung der Deutschen Kommission Justitia et Pax, Gästehaus des Katholischen Militärbischofsamtes, Berlin
22. 10. 2008 “The climate problem and its solution” – invited talk at the Berlin-Brandenburger Humboldt Dialog (<http://www.awb.tu-berlin.de/bbhd/>), sponsored by the Alexander von Humboldt Foundation, hosted by the TU Berlin
20. 10. 2008 Panel participation on “Does the EIT provide new opportunities for cooperation between Industry and Climate Science?” at “Making Europe climate proof: The European Institute of Innovation and Technology (EIT) and its Potentials in Climate Research” – International expert meeting within the French EU Presidency, French Embassy, Berlin
14. 7. 2008 “Costs of mitigation with and without CCS” - input presentation at NGO CCS workshop, Institute for European Environmental Policy, Brussels, Belgium.
26. 6. 2008 Testifying at the „Anhörung des Ausschusses für Infrastruktur und Raumordnung des Landtags Brandenburg“ on the role of CCS and coal, Potsdam.
26. 6. 2008 Participation at policy breakfast with Chris Davies, MdEP, „Carbon Capture and Storage: Stand und Perspektiven der europäischen Gesetzgebung“, Restaurant Tucher, Berlin.
25. 6. 2008 Representing PIK at a seminar on CCS in the Nordic Embassies, Berlin.
7. 5. 2008 Participation in the DENA (Deutsche Energie-Agentur GmbH) Energy Forum „Kraftwerks- und Netzplanung bis 2020“ (Design of the German power plant & network system until 2020), Berlin.
28. 4. 2008 „Was kostet der Klimaschutz? Durch welche (Energie-)Optionen kann er kostengünstig erreicht werden?“ (“What are the costs of climate protection? What are the energy options to achieve cost-effective policies?”), lecture at the “AutoUni”-conference “CO<sub>2</sub>-Herausforderung”, Audi Conference Centre Ingolstadt, Germany.
26. 4. 2008 Seminar Nachhaltige Energieversorgung – Konsequenzen für das Klima? (‘Sustainable energy supply – consequences for the climate system?’) at the ‘Manfred Eigen Nachwuchswissenschaftler Gespräche der Bunsen Gesell-



schaft', Evangelische Akademie, Bad Herrenalb, Germany.

26. 11. 2007 „Was kostet der Klimaschutz? Durch welche (Energie-)Optionen kann er kostengünstig erreicht werden?“ (“What are the costs of climate protection? What are the energy options to achieve cost-effective policies?”), lecture at the “AutoUni”-conference “CO<sub>2</sub>-Herausforderung”, MobileLifeCampus (VW), Wolfsburg, Germany.
8. 11. 2007 Input on bond systems for carbon sequestration in the discussion group on “resolving the long-term liability contractual risk”, conference on regulating and financing carbon capture and storage, Swiss Re Centre for Global Dialogue, Rüslikon, Switzerland.
21. 9. 2007 „Globale Erwärmung und Handlungsmöglichkeiten“ (Global warming and policy options) – seminar talk during the ‚Auto-Uni‘ (Volkswagen) conference „Zukünfte – unser Bild von der Zukunft“, (‘futures – our view on the future’) NH Voltaire, Potsdam.
20. 9. 2007 „Wege aus der Klimafalle“ (paths leading out of the ‘climate trap’) - presentation at PIK during the seminar „Staat und Gesellschaft in Deutschland“ (state and society in Germany) for Bedienstete der Europäischen Kommission (public servants of the European Commission; Seminar EU 275.01/07).
25. 6. 2007 Hearing by Brandenburg’s advisory council for sustainability (‘Nachhaltigkeitsbeirat’) on necessary characteristics of carbon capture and sequestration to make it a mitigation strategy (‘Anforderungen des Klimaschutzes an die CO<sub>2</sub>-Sequestrierung’), Ministerium für Ländliche Entwicklung, Umwelt und Verbraucherschutz, Potsdam.
8. 5. 2007 Hearing by the Committee on Industry, Research and Energy of the European Parliament at PIK.
7. 5. 2007 Hearing by the Bundesverband der deutschen Gas- und Wasserwirtschaft, Berlin, on Carbon Capture and Sequestration.
19. 3. 2007 Hearing by the working groups “energy” and “environment” of the Liberal Democratic party (FDP) of the group of the German Bundestag on “tipping points in the Earth system”.
7. 3. 2007 Participation in an expert hearing on Carbon Capture and Sequestration by the Commission for the Environment, Nature Conservation, and Nuclear Safety of the German federal parliament. Paul-Löbe-Haus / Deutscher Bundestag, Berlin.
18. 1. 2007 Expert workshop on Carbon Capture and Storage by the Büro für Technikfolgen-Abschätzung des Deutschen Bundestages (TAB) Gemeinsam mit der Ecofys Germany GmbH und dem Öko-Institut e. V., Paul-Löbe-Haus /

Deutscher Bundestag, Berlin.

5. 12. 2006 Member of a PIK delegation at the hearing ‘Das CO<sub>2</sub>-freie Kraftwerk: PR-Gag oder Zukunftsvision’ by Reinhard Loske MdB, Bündnis 90 / Die Grünen im Bundestag, Jakob Kaiser-Haus, Berlin.
1. 2. 2006 Panel discussion on (interdisciplinary) career perspectives in physics, University of Potsdam.

In addition, frequent meetings with the German insurance industry, energy suppliers and stakeholders on CCS.

### **Contributions to the IPCC-Process (Intergovernmental Panel on Climate Change)**

- 2018 - 2022 Review Editor AR6 WGIII Ch17: ‘Accelerating the transition in the context of sustainable development’
- 6.-7. 7. 2010 IPCC Cross-Working Group Meeting on Consistent Treatment of Uncertainties, Stanford
- 2010 Member of the IPCC Cross-Working Group on Consistent Treatment of Uncertainties, leading to the following **guidance note**: ‘Michael D. Mastrandrea, Christopher B. Field, Thomas F. Stocker, Ottmar Edenhofer, Kristie L. Ebi, David J. Frame, Hermann Held, Elmar Kriegler, Katharine J. Mach, Patrick R. Matschoss, Gian-Kasper Plattner, Gary W. Yohe, and Francis W. Zwiers (Core Writing Team), IPCC, Cross-Working Group Meeting on Consistent Treatment of Uncertainties, Jasper Ridge, CA, USA, 6-7 July 2010; The Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties is the agreed product of the IPCC Cross-Working Group Meeting on Consistent Treatment of Uncertainties. This meeting was agreed in advance as part of the IPCC workplan. At its 32<sup>nd</sup> session, the IPCC Panel urged the implementation of this Guidance Note. Supporting material prepared for consideration by the Intergovernmental Panel on Climate Change. The material has not been subjected to formal IPCC review processes.’
- Since 2010 Lead Author for Chapter 2 on “Integrated Risk and Uncertainty Assessment of Climate Change Response Policies”, WGIII, Fifth Assessment Report; lead author meetings: July 2011, South Korea; March 2012, New Zealand; November 2012, Spain; July 2013, Ethiopia
- 2005-2006 Referee for the WG I, Fourth Assessment Report on chapters dealing with climate sensitivity

## Participation in Steering Committees, PI functions and Advisory Committees

- Since 2021* Deputy chair of PIER ‘Climate and Coast’ (<https://www.pier-plus.de/en/profile/pier-klima-kueste.html>)
- 2021 - 2022* Member of the Universität Hamburg’s working group on sustainability – focus ‘research’
- 2020 - 2024* Member of ‘Hamburger Klimarat’ (<https://boettcher.science/klimarat>)
- Since 2019* Representative of Universität Hamburg at KlimaCampus Hamburg Round Table; 2019-2021 also member of the Coordination Team
- Since 2019* Member of CGG / CSS
- 2019 - 2024* Member of the Scientific Steering Committee of CLICCS (Climate, Climatic Change and Society; Cluster of Excellence on Climate by Universität Hamburg)
- Since 2018* Member of the German IIASA (International Institute for Applied Systems Analysis, Laxenburg, Austria) Committee
- Since 2017* Executive board member of the Helmholtz-Institut Climate Service Science (HICSS; <http://www.gerics.de/science/hicss/index.php.en> )
- 2016 - 2024* Advisory Council Member of Hamburg’s Foundation for Climate Protection (Stiftungsrat der Hamburger Klimaschutzstiftung; <http://www.gut-karlshoehe.de/die-akademie/bildung-und-lernen/> )
- Since 2016* Member of the governing board of CEN (Center for Earth System Research and Sustainability, Universität Hamburg)
- 2013 - 2016* Member of the CE-SPP Executive Board (DFG priority programme) ‘Climate engineering – Risks, Challenges, Opportunities?’
- 2012 - 2017* Member of the German Bishops' Conference Research Group on the Universal Tasks of the Church (Wissenschaftliche Arbeitsgruppe für weltkirchliche Aufgaben der Deutschen Bischofskonferenz); contribution on sustainable development
- 2012 - 2015* Member of the SICSS-Directorate (School of Integrated Climate System Sciences – the graduate school of the climate cluster of excellence CliSAP – <http://www.klimacampus.de/> ), together with C. Eden and M. Hort; managing director in 2014/2015
- 2011 - 2015* Member of the Advisory Board of the aid organisation MISEREOR

- Since 2011* Member of the Scientific Advisory Board of the Wegener Center for Climate and Global Change ( [www.wegcenter.at](http://www.wegcenter.at) ) at the University of Graz, Austria
- 2011 - 2018* Member of the CliSAP (climate cluster of excellence at the KlimaCampus Hamburg; <http://www.clisap.de/> ) Scientific Steering Committee.
- Since 2011* Member of the IMPRS Executive Committee (International Max Planck Research School on Earth System Modelling; <http://www.earthsystemschool.mpg.de/> ; 3<sup>rd</sup> phase funded until 2017)
- Since 2011* Lead of the track ‘climate-related economic and social sciences’, master programme SICSS
- 2010 - 2019* Member of the SICSS-Committee
- 2010 - 2014* Member of the Universität Hamburg’s commission on a ‘University for a Sustainable Future’
- 2010 - 2018* Principal investigator within CliSAP.
- Since 2010* Editorial Board Member of *Earth System Dynamics*.
- 2009* Coordinator for Germany in an EIT-KIC-proposal on climate April-August 2009 (PIK together with ETHZ, Imperial College, IPSL/ParisTech, U Utrecht; German node: TU Berlin, TU Munich, GFZ Potsdam) until submission of proposal (granted 16<sup>th</sup> December 2009).
- 2009 - 2013* Deputy member of the (presently de-activated) board of trustees for environmental issues at the Technical University of Berlin (renewed for 2<sup>nd</sup> term in 2010).
- 2009* Member of the ISIPTA-2009 Programme Committee (Sixth International Symposium on Imprecise Probability).
- 2008 - 2010* Scientific node (since March 2009 also scientific coordinator) at PIK for the co-development of a European climate proposal within the *European Institute for Innovation & Technology* (EIT – Climate KIC (Knowledge & Innovation Community), implying co-organisation of a 1000 person 7-15 yrs project).
- 2006 - 2011* Principal Investigator of the Work Package “Modelling Contemporary Climate for an Iterative Assessment of Adaptation & Mitigation Policies” within ENIGMA (*Earth system Network of Integrated Modelling and Assessment* – a project 2006-2011 of the multi-institutional consortium Earth System Research Partnership towards a German Network of Excellence in Earth System Modelling by MPI-BGC, MPI-Chem, MPI-Met, PIK).

- 2005 - 2009 Maximum term elected president for EGU-ERE (European Geoscience Union – Energy, Resources and the Environment) – re-elected in 2007.
- 2004 Member of a selection committee for the German National Academic Foundation (“Studienstiftung des deutschen Volkes”).
- Since 2003 Various offices in EGU-ERE (in addition to abovementioned presidency): 2003-2009 Programme Director, since 2003: convener for various ERE sessions on fossil resources, carbon sequestration and integrated assessment of energy options, 2004-2005 Executive President, 2004-2009 Member of the EGU Council & Programme Committee, 2009-2013 Vice President, since 2013: Officer “Economics & Integration”
- 2002 - 2003 Member of the Principal Advisory Committee for the Dahlem-Conference *Earth System Analysis for Sustainability*, held in Mai 2003.

## Referee-activities for peer-review

- **Scientific journals:** Chaos, Solitons & Fractals, Climate Dynamics, Climatic Change, Earth System Dynamics, Ecological Economics, Economic Modelling, Energy Economics, Environmental and Resource Economics, Environmental Research Letters, Environmental Science & Technology, International Journal of Approximate Reasoning, International Journal of Bifurcation and Chaos, International Journal of Greenhouse Gas Control, Journal of Environmental Economics and Policy, Journal of Statistical Theory and Practice, Meteorology, Nature Climate Change, Nature Communications, Nonlinear Processes in Geophysics, Phys. Lett. A, PNAS, Science, Science Progress, Water Resources Research
- **Science institutions and organizations:** Alexander von Humboldt Foundation, ETH Zurich Research Commission, German Academic Exchange Service (DAAD), German Advisory Council on the Environment (SRU), German National Academic Foundation (“Studienstiftung des deutschen Volkes”), German Research Foundation (DFG), National Science Foundation (NSF), UK Natural Environment Research Council (NERC), University of Oxford
- **Books:** Multiple Referee for *Global Sustainability – A Nobel Cause*, Schellnhuber, H. J., M. Molina, N. Stern, V. Huber and S. Kadner (eds.), Cambridge University Press, Cambridge, United Kingdom and New York, USA, ISBN-13: 9780521769341, pp. 392 (<http://www.nobel-cause.de/book/global-sustainability>)
- **Industry:** AXA Research Fund, Joachim Herz Stiftung
- **Popular Media:** Klimanavigator (‘Climate Navigator’) – <http://www.klimanavigator.de/>

## Supervision

- 2023-2024* Supervision of an economic master thesis on potential parallels of climate economics-based cost-risk analysis in applications beyond climate economics
- 2023* Supervision of an economic master thesis on the inclusion of nuclear fusion in cost effectiveness analyses of temperature targets
- 2022* Supervision of a SICSS master thesis on solar radiation management in cost effectiveness analysis – the role of extremely reacting Giorgi & Bi-regions
- Since 2021* Supervision of a doctoral thesis on cost risk analysis
- 2019-2020* Supervision of a SICSS master thesis on the coupling of integrated assessment and energy system models
- 2019-2024* Supervision of an economic doctoral thesis on adaptation options for fisheries in the German Bight
- 2019* Supervision of a POMOR-Master thesis on the integration of ozone depletion in the integrated assessment of solar radiation management by sulphur aerosol injection
- 2018* Supervision of a SICSS master thesis on the regulation of CCS
- 2017-2018* Supervision of a PEP master thesis on the interpretation of the 2° target
- 2016-2017* Supervision of a SICSS master thesis on contrasting Knightian uncertainty-based cost benefit and cost risk analysis
- 2016* Supervision of a SICSS master thesis on the relation of climate targets and anticipated future learning
- 2016* Supervision of a SICSS master thesis on the relation of alternative climate targets
- 2015-2016* Supervision of an economic master thesis on the role of negative emissions under delayed participation, evaluated in a cost-risk analytic framework
- 2014-2023* Supervision of an economic doctoral thesis on the sustainable management of the floor of the German Bight
- 2014-2019* Supervision of an economic doctoral thesis on the assessment of climate engineering options as substitutes or complements of standard mitigation options
- 2014* Supervision of a Master of Economics thesis “Evaluating Delayed Climate

Policy by Cost-Risk Analysis”

- 2014 Supervision of SICSS master thesis “Investigation of Spatial Sensitivities in an Integrated Assessment of Stratospheric Sulfur Aerosol Solar Radiation Management respecting Regional Precipitation Guardrails” (UHH)
- 2013 Supervision of SICSS master thesis “Contributions to an Integrated Assessment of Solar Radiation Management with MIND” (UHH)
- 2013 Supervision of Master of Economics thesis “Investment under Uncertainty: Prospects for reducing complexity in the coupled energy-economy-climate model environment (Re)MIND” (UHH)
- 2012 Supervision of SICSS master thesis on decisive factors for companies on the amount of implementation of a climate policy (A. Schütz, jointly with A. Bassen, J. Scheffran, UHH)
- 2011 - 2017 Supervision of an EIT-Climate-KIC thesis on entrepreneurial activity for rainforest preservation under a global agro-economic perspective (jointly with M. von Hauff, U Kaiserslautern)
- 2011 - 2014 Supervision of an IMPRS-ESM doctoral thesis on the economic value of geoscientific information (“Value of Information under Climate Targets: an Application of Cost-Risk Analysis”)
- 2010 - 2014 Supervision of an IMPRS-ESM doctoral thesis on the agro-economic effects of extreme weather events and their impact on a cost optimal mitigation policy (“A stochastic model for options and strategies for the Spanish agricultural sector under climate change”)
- 2009 - 2012 Supervision of a doctoral thesis on the strategic options of the insurance sector with respect to global warming impacts (supervision continued by U. Ulbrich at FU Berlin after change to Hamburg)
- 2008 - 2011 Co-supervision of a PhD thesis on fundamentals of the internalisation of learning in probabilistic cost-effectiveness analysis (Matthias Schmidt; supervision together with Dr. E. Kriegler under Prof. O. Edenhofer)
- Spring 2008 Supervision of a practical training on risk classes and carbon cycle uncertainty.
- 2008 - 2009 Supervision of a diploma thesis on validation of a fast climate module for economic optimisation (Sebastian Lüke).

- 2007- 2011* Co-supervision of a PhD thesis on the expected value of information of new information on climate dynamics, climate damages and economic parameters (Alexander Lorenz; together with Dr. E. Kriegler under Prof. O. Edenhofer)
- Autumn 2007* Supervision of a practical training on validation of a fast climate module for economic optimisation.
- 2006 - 2007* Supervision of a diploma thesis on Bayesian learning from paleo time series for cost-effectiveness analysis of climate policies under Prof. Rahmstorf (Alexander Lorenz; diploma with distinction; WE Heraeus-Prize in 2008).
- Sep 2006* Supervision of a practical student (together with M. Hofmann) on tracer transport in the ocean GCM MOM-3.
- Summer 2005* Supervision of a practical student (graduate) on detection of bifurcations.
- Summer 2004* Co-supervision of a diploma thesis (together with the University of Cologne, energy company RWE, B. Hare & S. Rahmstorf, PIK) in Energy Economics “Climate research & climate politics”.
- 2002 - 2003* Co-supervision of a PhD student on Representation of uncertainty by non-additive measures and their dynamical propagation under Prof. Schellnhuber (Elmar Kriegler).
- Summer 2002* Supervision of a practical student (graduate) on the implementation of the Latin Hypercube sampling scheme.
- 2001 - 2006* Supervision of a PhD student on the Deformation of phase space topologies under module coupling under Prof. Schellnhuber (Brigitte Knopf).
- 2001 - 2006* Supervision of a PhD student on the uncertainty analysis of complex climate models, in particular CLIMBER-2 under Prof. Rahmstorf (Thomas Schneider von Deimling).
- 2001 - 2002* Co-supervision of a PhD student on indicators for bifurcations in the Earth system under Prof. Schellnhuber (Thomas Kleinen).
- 1998* (Remote-)Co-supervision of a diploma student on Ericson-Fluctuations in quantum mechanical scattering systems with classically chaotic pendant.  
Supervision of practical work for natural scientists (undergraduate course).
- 1997* Coordinator-in-chief of the “Physik-Vordiplom” at the University of Munich.
- 1995-1996* Supervision of a diploma student on tests of Gutzwiller’s trace formula for long periodic orbits (Rydberg atoms in a strong magnetic field).



- 1994-1995 Supervision of various practical exercises (graduate students).
- Statistics on finalized doctoral theses* Co-supervision of 6 doctoral theses, 3 resulting in “summa cum laude”.  
(hereby end dates would indicate theses submission dates (of then successfully defended theses))

## Public Relations

11. 7. 2024 Presentation ‘A Dynamically Consistent Interpretation of Climate Targets and the Costs of Compliance’, Alumni of the Alexander von Humboldt Foundation, Hamburg
23. 11. 2023 Panel at ‘Ökologie & Freiheit’, Zentrum für Liberale Moderne, Berlin
31. 8. 2023 ‘The climate problem and its solution’ – talk at Ökumenische Woche der Schöpfung 2023, Hamburg-Bergedorf
25. 3. 2023 Input on climate policy at civil service, St. Petri, Hamburg
22. 11. 2022 Panelist at ‘Wissenschaftliche Prognostik und die Freiheit politischer Entscheidungen’, Körber Forum, Hamburg
8. 9. 2022 ‘Klimaziele, IPCC-Bericht und CLICCS’, presentation to visiting members of BMBF, UHH
6. 9. 2022 Presentation ‘Klimawandel als Beispiel globaler Bedrohungsszenarien – und Lösungen’, 66. Jahrestagung des Instituts für Interdisziplinäre Forschung der Görres-Gesellschaft, ‘Christliche Umweltethik’, Berlin
22. 8. 2022 Presentation of IPCC AR6 WGIII before BSH, Hamburg
17. 8. 2022 Presentation of KlimaCampus Hamburg to Member of Parliament (Berlin) Olaf in der Beek (FDP)
4. 4. 2022 Press notification about IPCC AR6 WGIII <https://www.cen.uni-hamburg.de/about-cen/news/09-news-2022/2022-04-04-ipcc-teilbericht-3.html> ; <https://www.uni-hamburg.de/newsroom/im-fokus/2022/0404-ipcc.html>
15. 3. 2021 Presentation at press conference for ‘12. Deutsche Klimatagung’, Hamburg
7. 10. 2020 Panel member on ‘Donner. Wetter. Klima. – Viel Lärm, wenig Ertrag?’ , Bucerius Law School, Hamburg

16. 9. 2020 Background interview on solutions of the climate climate problem with Psychologists for Future (Katharina van Bronswijk)
7. 11. 2019 Panel member on Politik und Klimaschutz, Karlshöher Gespräch, Hamburg
5. 11. 2019 Presentation ‘Was bedeuten die Pariser Klimaziele und wie lassen sie sich global umsetzen?’ Klima- und Umweltbuendnis Stuttgart
5. 11. 2019 Presentation ‘Das 2°-Ziel und seine klimapolitischen Herausforderungen’, Akademietage Bietigheim-Bissingen
24. 10. 2019 Presentation ‘Wie können wir das Klimaproblem lösen?’, 23. Oberstufenakademie »Globalisierung der Wirtschaft: zwischen Chance und Herausforderung«, Hamburg
26. 2. 2019 Panel member in selection committee for the pupils’ competition ‘Welcoming the future – My climate-friendly Hamburg 2030’ (#moinzukunft – Mein klimafreundliches Hamburg 2030’, Wettbewerb der Behörde für Umwelt und Energie)
21. 11. 2018 Panel member by Hamburger Klimaschutzstiftung: ‘Spielt Geld keine Rolle? Wirtschaft & Klimaschutz’
7. 2. 2018 Interview by ‘Hamburger Abendblatt’ on the climate problem and its solutions
26. 9. 2017 Panel member in ‚Zwei Grad wärmer – und dann!? Was es bedeutet, den Klimawandel zu begrenzen‘, Veranstaltungsreihe Wissenschaft kontrovers im Wissenschaftsjahr 2016\*17 – Meere und Ozeane (BMBF), Hamburg
2. 2. 2017 ‚Klimapolitik nach der UN Klimakonferenz Paris 2015: Chancen und Herausforderungen‘, public lecture in the series ‚Naturwissenschaft & Musik‘ 2016-17, DESY, Hamburg
19. 7. 2016 ‚Das Klima geht uns alle an!‘, Schülerkongress, Klima, Energie & Nachhaltigkeit, TU Hamburg
15. 4. 2016 ‚Das Klima im 21. Jahrhundert – Was können wir entscheiden?‘ 150 Jahre Kaiser-Karl-Schule Itzehoe, Germany
5. 2. 2016 ‚Der jüngste Bericht des Weltklimarats: Handlungsmöglichkeiten gegen den Klimawandel‘, Ferdinand-Porsche-Gymnasium Zuffenhausen b. Stuttgart
17. 10. 2015 ‚Disziplinspezifische Denkvoraussetzungen in der Klimaökonomik‘, Offener Studientag des Symposiums ‚Überzeugungen und Denkvoraussetzungen in der Wissenschaft‘, Aachen
23. 4. 2014 Panel about IPCC AR5, ‚Podiumsdiskussion mit der Wissenschaft: Weltklima-

Bericht: Was bedeutet er für Hamburg?' at Universität Hamburg

- 10. 10. 2013* Public commentary on B. Guggenberger: 'Nachhaltigkeit – eine Illusion? Wie weit trägt das Konzept einer Dauerhaften Entwicklung?', Budapester Gespräche: 'Nachhaltigkeitsstrategien in Europa' by the Andrassy University Budapest, the Budapest Business School, the Konrad Adenauer Stiftung and by the Europa-Kolleg Hamburg, Budapest, Hungary
- 20. 9. 2013* Interviewed by Miriam Stumpfe (Bayerischer Rundfunk) about the functioning of IPCC and my personal experiences with that body (broadcasted on 24. 9. 2013)
- 4. 5. 2013* Initialization of and participation in two panels at the 'Deutscher Evangelischer Kirchentag' (about climate economics and about the relation of science and the churches when addressing sustainability issues), Hamburg
- 29. 10. 2011* 'Lässt sich das Klimaproblem kostengünstig und fair lösen?' ('Can we solve the climate problem in a cost-efficient and fair manner?'), 4. Nacht des Wissens in Hamburg
- 27. 5. 2011* 'Klimaschutz und die Umstellung der Energieversorgung', Ikeo- Informationsveranstaltung, Wümmeschule Ottersberg, Germany
- 5. 4. 2011* Panelist for the economics of CCS in a press conference 'Geothermal energy versus CO<sub>2</sub>-storage: can we use the underground more than once?' (<http://meetings.copernicus.org/egu2011/webstreaming.html>), EGU 2011, Vienna
- 21. 2. 2011* Background interview by Ulrich Mendgen, NDR Fernsehen, Programmbereich Zeitgeschehen, Redaktion Menschen und Schlagzeilen, on CCS.
- 18. 2. 2011* Interviewed by Angelika Hillmer, Hamburger Abendblatt, on CCS.
- 24. 9. 2010* Panellist discussing H. Graßl's presentation 'Climate and Energy from the point of view of Physics' at '2. Hamburger Klimanacht', in the presence of Dr. Herlind Gundelach, Senator for Science and Research, Freie und Hansestadt Hamburg, Bechsteinsaal, Europapassagen, Hamburg
- 1. 10. 2009* Extended abstract in 'Blankeneser Kirche am Markt' **57**: 'Klimawandel als Gefahr und Chance von biblischer Dimension' & talk given at Ev. GemeindeAkademie Blankenese, Germany
- 3. 11. 2008* Interviewed by Zimmermann, Hessischer Rundfunk, on instruments for observing EU's 2° target
- 9. 10. 2008* Commenting on 'Basic Economics of Ocean Acidification and Atmospheric CO<sub>2</sub> stabilisation' in the press conference of the 2<sup>nd</sup> International Symposium

- on 'The Ocean in a High-CO<sub>2</sub>-World', Monaco
30. 9. 2008 Interviewed by Dorothee Bürkle on early warning systems for tipping points in view of an article with the Goethe Institute
9. 9. 2008 Interview with Uwe Lölke, MDR Info Radio on the potential role of CO<sub>2</sub>-free coal power plants.
10. 7. 2008 'Das Klimaproblem und seine Lösung' – lecture at PIK to fellows of Berlin's Canisius college.
2. 7. 2008 Seminar and panel discussion on solutions of the climate problem at the CV Academy, Museum König, Bonn, Germany.
14. 6. 2008 Public Lecture 'Warum wir einen Global Deal brauchen' ('Why we need a global deal'), Lange Nacht der Wissenschaft, PIK.
28. 5. 2008 DVD production on the climate problem and its solution.
27. 5. 2008 Presentation 'Das Klimaproblem und seine Lösung', Rotary Club Gedächtniskirche Berlin, Savoy Hotel Berlin.
17. 5. 2008 Lecture 'Die weltweiten Klimaveränderungen – Fragen und Konsequenzen für unsere Kirche', Vollversammlung des Diözesanrates der Katholiken im Erzbistum Köln, Thomas-Morus-Akademie / Kardinal-Schulte-Haus, Bensberg, Germany.
23. 4. 2008 Presenting PIK's research and mission at PIK before a delegation of Latin American faculty members, visiting the Hannover Messe on behalf of BMBF.
2. 4. 2008 Presenting PIK's research and mission at a visit of foreign correspondents, catalyzed by the German state department, at PIK.
13. 3. 2008 Panel discussion on solutions to the climate problem, Siemens Wirtschafts-Forum Rostock 2008, Hohen Luckow castle near Rostock, Germany.
5. 3. 2008 Attending an Open Hearing in the European Parliament by Chris Davies, MEP UK, on CO<sub>2</sub> Capture and Storage – The Way Forward, Brussels.
25. 1. 2008 Representing PIK at the 50y anniversary of the development aid organization MISEREOR, House of History, Bonn.
24. 1. 2008 Attending the New Year Reception of the Alexander von Humboldt-Foundation, Berlin-Brandenburg Academy of Science, Berlin.
10. 12. 2007 Representing PIK at the Conference Series 'Germany and the UK – Partner in Europe', at that day with John Hutton, Secretary of State for Business, Enter-

prise and Regulatory Reform on ‘The UK Meeting the Energy Challenge with Europe’, British Embassy, Berlin.

13. 11. 2007 Das Klimaproblem ist lösbar (We can solve the climate problem); invited lecture at the annual meeting of TTNet (Technology Transfer Network), Handwerkskammer Bildungszentrum Münster, Germany.
5. 11. 2007 Folgen des Klimawandels & Lösungen des Klimaproblems (Impacts of global warming and sustainable solutions); lecture within the series ‚Mensch und Natur‘, Kreis Ostholstein & Kolpingsfamilie Eutin, Kreishaus, Eutin, Germany.
5. 11. 2007 Ansätze zur Zukunftsgestaltung: Das Klimaproblem und seine Lösung (Approaches to design our future: the climate problem and respective solutions); lecture at the Carl Maria von Weber-Gymnasium, Eutin.
23. 10. 2007 Interviewed by Quirin Schiermeier, *Nature*, on sponsoring criteria for the European Geoscience Union.
20. 9. 2007 Interview with Michael Kurth on the results of the VW foundation-funded project (low mitigation costs); broadcasted on NDR Info Radio.
13. 6. 2007 Representing PIK at the inauguration of the first European on-shore carbon dioxide sequestration site at Ketzin (near Potsdam); workshop by ETP-ZEP (European Technology Platform – Zero Emission Platform).
16. 4. 2007 Interview on the cost effectiveness analysis of mitigation options under climate uncertainty by Liz Kalaugher, Institute of Physics for Env. Res. Web.
26. 2. 2007 Interview on Carbon Capture and Sequestration by Ina Matthes, Märkische Oderzeitung.
15. 1. 2007 Ist Klimaschutz bezahlbar? Lösungsvorschläge zum Klimaproblem aus Sicht von Wirtschafts- und Klimawissenschaft, Rotary Club Verden/Aller, Germany.
8. 11. 2006 Speakers’ Press Conference during the First Potsdam Climate Conference.
3. 10. 2006 Member of the Brandenburg delegation “Brandenburg meets Britain” at the Royal Society London; theme: “Sustaining the World”.
18. 9. 2006 Participation in a public panel on “Does Climate Policy Fail?” in the series “Sustainability Talks in the Theatre” by the “Vereinigung für ökologische Wirtschaftsforschung e. V.”, BKA Theater, Berlin.
14. 9. 2006 Interview with Fiona Harvey on Tipping Points in the Earth system for Financial Times London.

14. 9. 2006 Interview with Horst Hamm on Tipping Points in the Earth system for Natur+Kosmos.
21. 6. 2006 Interview (during the GHGT-8-conference, Trondheim, Norway) on bond schemes for underground carbon storage by Alister Doyle, Environment Correspondent for Reuters.
12. 6. 2006 “An early warning system for tipping points”; presentation at a meeting with Renate Künast, leader of the Green Party’s parliamentary party at PIK.
13. 5. 2006 “Ausgewählte Achillesfersen der Erde”; Lange Nacht der Wissenschaft am PIK; lecture & poster.
13. 5. 2006 “Kosten und Strategien des Klimaschutzes”; Lange Nacht der Wissenschaft am PIK; lecture & poster.
20. 4. 2006 “Der Klimawandel und das 2°C-Ziel der Europäischen Kommission” im Rahmen des Besuchs des 28. Internationalen Diplomatenlehrgangs des Auswärtigen Amtes am PIK.
19. 4. 2006 “Adaptation & Mitigation Research at PIK for sustainability”; visit by the ev. Kirchengemeinde Faurndau at PIK.
8. 3. 2006 “Das Klimaproblem und seine Lösung” (“The climate problem and how to resolve it”), Porsche-Gymnasium, Stuttgart.
7. 3. 2006 “Wie und wohin das Raumschiff Erde steuern? Globale Koevolution; 23 Fragen für eine nachhaltige Entwicklung” (“Where and how to navigate the Spaceship Earth – Global Coevolution; 23 central questions for a sustainable development”), Evangelische Akademie Hospitalhof, Stuttgart.
3. 2006 Supporting interview with WIRTSCHAFTSWOCHE **11** on *Tipping Points in the Earth system* (*Kur fürs Klima*), disseminated 13 Mar 2006.
19. 11. 2004 Supporting interview with the Swiss magazine FACTS on *Tipping Points in the Earth system*, disseminated 2 Dec 2004, 72-73.
27. 10. 2004 Supporting interview with the GUARDIAN on *Pressure points in the Earth system*, disseminated 14 Oct 2004.
6. 4. 2004 Dynamiken von Unsicherheiten in Erdsystem-Modellen (Dynamics of uncertainty in Earth system models); lecture at the final selection seminar for the German team to be sent to the International Physics Olympiade, IPN, Kiel, Germany.

## Articles in Popular Media

4. 3. 2007 C. Flachsland & H. Held: “Unser neuer Speicherplatz” im Feuilleton der Frankfurter Allgemeinen Zeitung.

## Citations in the Media

20. 3. 2023 Interviewed by Deutschlandradio Kultur on IPCC AR6 Synthesis Report
17. 5. 2022 Statements on IPCC AR6 WGIII: <https://www.gmx.net/magazine/wissen/klima/chancen-kampf-klimawandel-36870938>
25. 9. 2020 Statements about civil society and the solution of the climate problem in ‘Wandel ohne Panikmodus’, taz.
10. 3. 2018 Statemens about solving the climate problem in ‘Wann müssen wir die Erde verlassen?’, Hamburger Abendblatt
5. 9. 2016 Announcement of public lecture for the ‘Universitäts-Gesellschaft’ on September 7, in the ‘Welt’
11. 12. 2015 Statement about Carbon Capture & Storage (CCS) in “Süddeutsche Zeitung” – following an interview by Benjamin von Brackel on COP21, Paris, December 1<sup>st</sup>.
16. 4. 2014 Interview online on the KlimaCampus homepage about the main findings of IPCC AR5 WGIII (interview by M. Dressel)
24. 9. 2013 Broadcasted Interview by Bayerischer Rundfunk about the functioning of the IPCC and my personal experiences with that body (6.00 und 7.00 in ‘radioWelt’ by Bayern2).
7. 2013 Press release by UHH on article ‘Public climate-change skepticism, energy preferences and political participation’ by Anita Engels, Otto Hüther, Mike Schäfer, Hermann Held, UHH Newsletter **52** (2013)
5. 2013 Discussion of seminar talk as of 23April2013 in “Der Albrecht” **25** (100), 4 (students’ magazine of the University of Kiel)
24. 4. 2012 Moderation of press conference ‘Reducing greenhouse gas emissions: renewable energy & CO<sub>2</sub> storage’, EGU 2012, Vienna (also mentioned under ‘expert hearings’)

16. 2. 2011 Inaugural lecture that at the same time opened the University's lecture series on sustainability mentioned in the UHH Newsletter **23**, 16 (Feb 2011).
15. 2. 2011 Cited in Hamburger Abendblatt on CCS (Angelika Hillmer: „Klimaschutz im norddeutschen Untergrund“)
8. 2. 2011 Press release by the Universität Hamburg on the inaugural lecture that at the same time opens the University's lecture series on sustainability.
10. 9. 2010 Short summary on presentation given at DVGW-conference 2. 6. 2010, appeared in the DVGW newsletter.
24. 6. 2010 Press release by PIK on the nomination as one of the Lead Authors of Chapter 2 ('Integrated Risk and Uncertainty Assessment of Climate Change Response Policies'), WGIII, IPCC-AR5.
27. 2. 2010 Citation in „Main-Spitze“ & „Wiesbadener Kurier“ about “Klimaschutz nach Kopenhagen: Wie investieren unter Unsicherheit?“ in the presence of Silke Lautenschäger, Hessian Secretary of the Environment, Energy, Agriculture and Consumer Protection, as well as Thomas Schmid, Präsident des Hessischen Landesamtes für Umwelt und Geologie, Erster Hessischer Klimaempfang Adam-Opel-Haus, Rüsselsheim, Germany
15. 12. 2009 Citation in “Märkische Allgemeine Zeitung”, p. 14, in the context of Visitors Program of the Federal Republic of Germany Program for Presidents and Prime Ministers of Pacific Island Countries, Dialogue on Climate Change at the Invitation of the Federal Foreign Office, held at PIK.
14. 12. 2009 Press release by PIK on ‘Staats- und Regierungschefs pazifischer Inselstaaten informieren sich auf dem Weg nach Kopenhagen am PIK’ including Held's statements on a Global Deal.
19. 10. 2009 Press release by PIK on ‘Monsoon model indicates potential for abrupt transitions’, triggered by the release of ‘Levermann A, Schewe J, Petoukhov V, Held H (2009) Basic mechanism for abrupt monsoon transitions. Proc Natl Acad Sci USA, 10.1073/PNAS.0901414106.’
10. 12. 2008 Press release by IGSD (Institute for Governance & Sustainable Development) on Held's presentation on tipping elements at COP 2008 side event.
10. 12. 2008 Press release by PIK on COP 2008 ‘Tipping elements, sea level rise and costs of climate protection outlined in Poznań’, including Held's presentation on tipping elements.
9. 9. 2008 Broadcast of interview (by Uwe Lölke) in MDR Info Radio on the potential role of CO<sub>2</sub>-free coal power plants.



1. 9. 2008 Contact person in PIK's press release on Dakos et al. (article in PNAS on early warning system for tipping points); [http://www.pik-potsdam.de/news/press-releases/future-tipping-points-in-the-climate-could-be-unveiled/view?set\\_language=en](http://www.pik-potsdam.de/news/press-releases/future-tipping-points-in-the-climate-could-be-unveiled/view?set_language=en).
27. 6. 2008 Citation in PNN on testifying in Landtag Brandenburg on CCS and the role of coal.
15. 4. 2008 Hint on 'Great Debates – How to Solve the Climate Problem?', EGU Today – Daily Newsletter from the general assembly (EGU 2008).
9. 11. 2007 Article on presentation of 5.11.2007 in Eutin ("Impacts of global warming and sustainable solutions" see Section "Public Relations"), Ostholsteiner Anzeiger.
6. 11. 2007 Article on presentation of 5.11.2007 in Eutin ("Impacts of global warming and sustainable solutions" see Section "Public Relations") by Martina Janke-Hansen, Lübecker Nachrichten.
1. 11. 2007 Cited as council member on sponsoring criteria for the European Geoscience Union (Quirin Schiermeier, *Nature*, **450**, 9 (2007)).
21. 9. 2007 NDR Info Radio on low mitigation costs and energy options (21h); reiteration on 23.9., 15h.
19. 9. 2007 "Klimaproblem ökonomisch lösbar" – article of the week under [www.eco-wiki.de](http://www.eco-wiki.de) by Anja Helena Rosengart on the results of the VW foundation-funded project.
15. 9. 2007 Potsdamer Neueste Nachrichten, Potsdam: "Kaum Alternative zu erneuerbaren Energien" on the results of the VW foundation-funded project.
14. 9. 2007 Nachrichtenagentur gfp: "Ökonomie und Klimaschutz kein unlösbarer Zielkonflikt" (by Helga Bodenstab).
23. 4. 2007 environmentalresearchweb: "Investment in climate mitigation needed earlier" (<http://environmentalresearchweb.org/cws/article/futures/27691>); article on Held's EGU-2007 talk: "Cost-effective climate protection paths robust under uncertainties about the economic and climate system".
28. 2. 2007 Märkische Oderzeitung: Zitat zu CCS in "Kerker für Klimakiller" (von Ina Matthes).
9. 11. 2006 Potsdamer Neueste Nachrichten: "Forscher: Klimawandel lässt sich gestalten" – Article on 1<sup>st</sup> Potsdam Climate Conference; specific contribution: low costs

of climate stabilisation.

9. 11. 2006 Spiegel Online: “Die Kurve kriegen mit dem Potsdamer Prozent” (focus as above).
13. 5. 2006 Märkische Oderzeitung: “Qualm auf dem Telegrafenberg”; specific contribution: Tipping points & their detection in the Earth system.
- Dec 2005 Bioscience: Review of “Earth System Analysis for Sustainability”.
- 2005 Physik Journal 4 (7), 23: Mentioning of EGU-ERE presidency
20. 8. 2002 Berliner Zeitung: “Zwischenlager für Treibhausgas gesucht”; article on CCS also mentioning the VW project.
31. 7. 2002 B. Z. “VW hilft”.
30. 7. 2002 Potsdamer Neueste Nachrichten: “VW-Geld für die Umwelt”.
30. 7. 2002 BILD Berlin-Brandenburg: “Fünf Potsdamer forschen für Volkswagen”.
30. 7. 2002 Berliner Zeitung: “VW-Stiftung spendiert Ökoforschern 661 600 Euro”.