

CURRICULUM VITAE

Name: Dr. Elmar Kriegler
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Homepage: <http://www.pik-potsdam.de/members/kriegler>
Date of Birth: 01/01/1971
Nationality: German

AREAS OF COMPETENCE

Integrated assessment of climate change, energy-economy-climate modeling, decision making under uncertainty, scenario analysis for climate change research

PROFESSIONAL EXPERIENCE

- Since 06 / 2010 ***Deputy Chair of Research Domain III "Sustainable Solutions",***
Potsdam Institute for Climate Impact Research
Scientific strategy of Research Domain III; Head of Integrated Assessment
Modelling organised in five working groups (Global Energy Systems; Energy
Resources and Technologies; Land Use Management; Growth and
Development; Model Operations) with approx. 20 junior and senior
scientists
- Since 02 / 2013 ***Project Chair EU FP7 Project ADVANCE***
Integrated Assessment Model Development and Validation for Improved
Analysis of Costs and Impacts of Mitigation Policies
- 2010 – 2014 ***Lead author of the 5th Assessment Report of IPCC Working Group III***
Chapter 6 "Assessing Transformation Pathways" and Annex II "Metrics and
Methodology", Contributing Author to the Summary for Policy Makers and
the Technical Summary
- 02 / 2011 – 01 / 2014 ***Project Director EU FP7 Project AMPERE***
Assessment of Mitigation Pathways and Evaluation of the Robustness of
Mitigation Cost Estimates
- 07 / 2012 – 02 / 2014 ***Coordinator Stanford Energy Modeling Forum Study 27***
Technology Strategies for Achieving Climate Policy Objectives
- 01 / 2010 - 12 / 2012 ***Coordinator Research Project RoSE***
Roadmaps towards Sustainable Energy Futures
- 06 / 2009 - 05 / 2010 ***Senior Scientist, Potsdam Institute for Climate Impact Research***
Integrated assessment modeling; Climate policy analysis under uncertainty
- 06 / 2008 - 05 / 2009 ***Marie Curie Visiting Fellow, Potsdam Institute for Climate Impact Research***
Research Project WIT (What Poor Information Can Tell: Analysis of Climate
Policies under Large Uncertainty about Climate Change)

06 / 2006 - 05 / 2008	Marie Curie Visiting Fellow , Department of Engineering and Public Policy, Carnegie Mellon University, Pittsburgh, USA Research Project WIT; Expert elicitations; Climate tipping points
01 / 2004 - 05 / 2006	Scientist , Potsdam Institute for Climate Impact Research Research project SPARK (Strategic Portfolio Analysis of Mitigation Options under Risk and Opportunity); Application of Imprecise Probability Theory
03 / 1999 - 12 / 2003	Junior Scientist , Potsdam Institute for Climate Impact Research Project Speaker, Research project GRAIN (Guardrails and Indicators for Climate Protection); Tolerable windows approach
2002	External advisor to the German Advisory Council on Global Change (WBGU) Interactive calculation of energy scenarios

EDUCATION

02 / 2000 - 07 / 2005	Doctoral studies in Theoretical Physics, University of Potsdam Thesis title: <i>Imprecise Probability Analysis for Integrated Assessment of Climate Change</i> Supervisor: Prof. H. J. Schellnhuber Degree: Dr. rer. nat. (summa cum laude / with distinction)
09 / 1996 - 07 / 1998	Graduate studies in Physics, Albert-Ludwigs University Freiburg Degree: "Diplom" (equivalent M. Sc.)
09 / 1995 - 08 / 1996	Visiting Graduate Student, Department of Physics, University of Washington, Seattle, USA
09 / 1993 - 08 / 1995	Graduate studies in Physics, Albert-Ludwigs University Freiburg
09 / 1991 - 08 / 1993	Undergraduate studies in Physics, Albert-Ludwigs University Freiburg Degree: "Vordiplom" (equivalent B. Sc.)

BOARD MEMBERSHIPS

Since 2010	Scientific Steering Committee, Integrated Assessment Modeling Consortium Representative of the Potsdam Institute for Climate Impact Research in the Committee
Since 2012	Member of the ICONICS International Committee on New Integrated Climate Change Assessment Scenarios, Co-chair of the Narratives Subgroup
Since 2013	Scientific Steering Committee, Stanford Energy Modeling Forum Project 33
Since 2014	Scientific Steering Committee, IPCC Expert Meeting on Scenarios (Laxenburg, May 2015)
2011-2014	Member of the Coordination Board of the EU FP7 Project LIMITS (Low Climate Impact Scenarios and the Implications of Required Tight Emission Control Strategies)
2014	Member of the Advisory Group for the Climate Engineering Conference

	2014 (Berlin, August 2014)
2011-2013	Scientific Steering Committee, Stanford Energy Modeling Forum Project 27
2010	Scientific Steering Committee, IPCC Workshop on Socio-economic Scenarios (Berlin, Nov 2010)

AWARDS

2014	EAERE Award for Outstanding Publication in Environmental and Resource Economics (ERE) for: M. G. W. Schmidt, H. Held, E. Kriegler, A. Lorenz (2013) <i>Climate Policy Under Uncertain and Heterogeneous Climate Damages</i> , Environmental and Resource Economics, Jan 2013, Vol 54, Issue 1, pp 79-99
10 / 2013	IAMC Award 2013 for outstanding achievements in the field of integrated assessment (Integrated Assessment Modeling Consortium)
06 / 2006 - 05 / 2009	Marie Curie Outgoing International Fellowship, European Union
02 / 2000 - 01 / 2003	Ph. D. scholarship, Deutsche Bundesstiftung Umwelt (German Federal Foundation of the Environment)
1995 / 96	Foreign exchange student travel grant, J. William Fulbright Foreign Scholarship Board

GUEST EDITORSHIPS

- AMPERE Special Issue 'The AMPERE intermodel comparison on the economics of climate stabilization', Technological Forecasting and Social Change, Vol. 90, Part A, Jan 2015
- EMF Special Issue 'The EMF27 Study on Global Technology and Climate Policy Strategies', Climatic Change, Vol. 123, Issue 3-4, Apr 2014
- LIMITS Special Issue on 'Implementing Climate Policies in the Major Economies: An Assessment of Durban Platform Architectures - Results from the LIMITS Project', Climate Change Economics, Vol. 04/Issue 04, Nov 2013
- RoSE Special Issue 'The Impact of Economic Growth and Fossil Fuel Availability on Climate Protection', Climatic Change

PUBLICATIONS

Journal Articles (peer reviewed)

Web of Science Statistics (including publications in ISI journals until March 2015)

45 articles; 1146 citations; Highest cited article: Lenton et al., 2008, PNAS – 649 citations;
5 articles with more than 40 citations; Average citations per article: 25.5; h-index: 12

Articles in Press (March 2015)

B.C. O'Neill, E. Kriegler, K.L. Ebi, et al. *The roads ahead: Narratives for shared socioeconomic pathways describing world futures in the 21st century*. Global Environmental Change. doi: 10.1016/j.gloenvcha.2015.01.004 (online first)

- M. Leimbach, **E. Kriegler**, N. Roming, J. Schwanitz. *Future growth patterns of world regions – A GDP scenario approach*. Global Environmental Change. doi: 10.1016/j.gloenvcha.2015.02.005 (online first)
- G. Luderer, C. Bertram, K. Calvin, E. De Cian, **E. Kriegler**. *Implications of weak near-term climate policies on long-term mitigation pathways*, Climatic Change, doi: 10.1007/s10584-013-0899-9 (online first)
- N. Bauer, I. Mouratiadou, G. Luderer, L. Baumstark, R. J. Brecha, O. Edenhofer, **E. Kriegler**. *Global fossil energy markets and climate change mitigation – an analysis with REMIND*. Climatic Change, doi: 10.1007/s10584-013-0901-6 (online first)
- I. Mouratiadou, G. Luderer, N. Bauer, **E. Kriegler**. *Emissions and their drivers: sensitivity to economic growth and fossil fuel availability across world regions*. Climatic Change, doi: 10.1007/s10584-015-1368-4 (online first)

2015

- C. Bertram, G. Luderer, R.C. Pietzcker, E. Schmid, **E. Kriegler**, O. Edenhofer (2015) *Complementing carbon prices with technology policies to keep climate targets within reach*. Nature Clim Change 5(3): 235–239. doi: 10.1038/nclimate2514
- M. Tavoni, **E. Kriegler**, K. Riahi, et al. (2015) *Post-2020 climate agreements in the major economies assessed in the light of global models*. Nature Clim Change 5(2):119–126. doi: 10.1038/nclimate2475
- E. Kriegler**, K. Riahi, V. Bosetti, et al. (2015) *Introduction to the AMPERE model intercomparison studies on the economics of climate stabilization*. Technological Forecasting and Social Change 90, Part A:1–7. doi: 10.1016/j.techfore.2014.10.012
- E. Kriegler**, N. Petermann, V. Krey, et al. (2015) *Diagnostic indicators for integrated assessment models of climate policy*. Technological Forecasting and Social Change 90, Part A:45–61. doi: 10.1016/j.techfore.2013.09.020
- E. Kriegler**, K. Riahi, N. Bauer, et al. (2015) *Making or breaking climate targets: The AMPERE study on staged accession scenarios for climate policy*. Technological Forecasting and Social Change 90, Part A:24–44. doi: 10.1016/j.techfore.2013.09.021
- K. Riahi, **E. Kriegler**, N. Johnson, et al. (2015) *Locked into Copenhagen pledges — Implications of short-term emission targets for the cost and feasibility of long-term climate goals*. Technological Forecasting and Social Change 90, Part A:8–23. doi: 10.1016/j.techfore.2013.09.016
- M. Schaeffer, L. Gohar, E. Kriegler, J. Lowe, K. Riahi, D.P. van Vuuren (2015) *Mid- and long-term climate projections for fragmented and delayed-action scenarios*, Technological Forecasting and Social Change, doi: 10.1016/j.techfore.2013.09.013
- T. Arroyo-Currás, N. Bauer, **E. Kriegler**, et al. (2015) *Carbon leakage in a fragmented climate regime: The dynamic response of global energy markets*. Technological Forecasting and Social Change 90, Part A:192–203. doi: 10.1016/j.techfore.2013.10.002

2014

- J. Weyant, **E. Kriegler** (2014) *Preface and introduction to EMF 27*. Climatic Change 123: 345–352. doi: 10.1007/s10584-014-1102-7
- E. Kriegler**, J.P. Weyant, G.J. Blanford, et al. (2014) *The role of technology for achieving climate policy objectives: overview of the EMF 27 study on global technology and climate policy strategies*. Climatic Change 123: 353–367. doi: 10.1007/s10584-013-0953-7
- V. Krey, G. Luderer, L. Clark, **E. Kriegler** (2014) *Getting from here to there - energy technology transformation pathways in the EMF27 scenarios*, Climatic Change 123: 369–382, doi: 10.1007/s10584-013-0947-5

- G.J. Blanford, **E. Kriegler**, M. Tavoni (2014) *Harmonization vs. fragmentation: overview of climate policy scenarios in EMF27*. Climatic Change 123:383–396. doi: 10.1007/s10584-013-0951-9
- S.K. Rose, **E. Kriegler**, R. Bibas, et al. (2013) *Bioenergy in energy transformation and climate management*. Climatic Change 123: 477–493. doi: 10.1007/s10584-013-0965-3
- A. Popp, S.K. Rose, K. Calvin, D.P. van Vuuren, J.P. Dietrich, M. Wise, E. Stehfest, F. Humpenöder, P. Kyle, J. van Vliet, N. Bauer, H. Lotze-Campen, D. Klein, **E. Kriegler** (2013) *Land-use transition for bioenergy and climate stabilization: model comparison of drivers, impacts and interactions with other land use based mitigation options*, Climatic Change 123: 495-509, doi: 10.1007/s10584-013-0926-x
- D. Klein, G. Luderer, **E. Kriegler**, J. Strefler, N. Bauer, M. Leimbach, A. Popp, J. P. Dietrich, F. Humpenöder, H. Lotze-Campen, O. Edenhofer (2013) *The value of bioenergy in low stabilization scenarios: an assessment using REMIND-MAGPIE*. Climatic Change 123: 705-718, doi: 10.1007/s10584-013-0940-z
- K.L. Ebi, S. Hallegatte, T. Kram, N.W. Arnell, T.R. Carter, J. Edmonds, **E. Kriegler**, R. Mathur, B.C. O'Neill, K. Riahi, H. Winkler, D.P. van Vuuren, T. Zwickel (2014) *A new scenario framework for climate change research: background, process, and future directions*, Climate Change, 122(3): 373-386, DOI: 10.1007/s10584-013-0912-3
- D.P. van Vuuren, **E. Kriegler**, B.C. O'Neill, K.L. Ebi, K. Riahi, T.R. Carter, J. Edmonds, S. Hallegatte, T. Kram, R. Mathur, H. Winkler (2014) *A new scenario framework for Climate Change Research: scenario matrix architecture*, Climatic Change, 122(3): 373-386, doi: 10.1007/s10584-013-0906-1
- B.C. O'Neill, **E. Kriegler**, K. Riahi, K.L. Ebi, S. Hallegatte, T.R. Carter, R. Mathur, D.P. van Vuuren (2014) *A new scenario framework for climate change research: the concept of shared socioeconomic pathways*, Climatic Change, 122(3): 387-400, doi: 10.1007/s10584-013-0905-2
- E. Kriegler**, J. Edmonds, S. Hallegatte, K.L. Ebi, T. Kram, K. Riahi, H. Winkler, D.P. van Vuuren (2014) *A new scenario framework for climate change research: the concept of shared climate policy assumptions*, Climatic Change, 122(3): 401-414, doi: 10.1007/s10584-013-0971-5
- K.L. Ebi, T. Kram, D.P. van Vuuren, B.C. O'Neill, **E. Kriegler** (2014) *A new toolkit for developing scenarios for climate change research and policy analysis*, Environment, 56(2): 6-16.
- R.C. Pietzcker, T. Longden, W. Chen, S. Fu, **E. Kriegler**, P. Kyle, G. Luderer (2014) *Long-term transport energy demand and climate policy: Alternative visions on transport decarbonization in energy-economy models*, Energy, 64, doi: 10.1016/j.energy.2013.08.059
- J. Strefler, G. Luderer, **E. Kriegler**, M. Meinshausen (2014) *Can air pollutant controls change global warming?* Environmental Science & Policy 41:33–43. doi: 10.1016/j.envsci.2014.04.009
- J. Strefler, G. Luderer, T. Aboumahboub, **E. Kriegler** (2014) *Economic impacts of alternative greenhouse gas emission metrics: a model-based assessment*. Climatic Change 125:319–331. doi: 10.1007/s10584-014-1188-y
- S. Zhang, N. Bauer, G. Luderer, **E. Kriegler** (2014) *Role of technologies in energy-related CO₂ mitigation in China within a climate-protection world: A scenarios analysis using REMIND*. Applied Energy, 115: 445-455, doi: 10.1016/j.apenergy.2013.10.039
- T. Aboumahboub, G. Luderer, **E. Kriegler**, et al. (2014) *On the regional distribution of climate mitigation costs: the impact of delayed cooperative action*. Clim Change Econ 05: 1440002. doi: 10.1142/S2010007814400028

2013

- E. Kriegler**, M. Tavoni, K. Riahi, D.P. Van Vuuren (2013) *Introducing the limits special issue*. Clim Change Econ 04:1302002. doi: 10.1142/S2010007813020028
- E. Kriegler**, M. Tavoni, T. Aboumahboub, et al. (2013) *What does the 2°C target imply for a global climate agreement in 2020? the limits study on durban platform scenarios*. Clim Change Econ

04:1340008. doi: 10.1142/S2010007813400083

M. Tavoni, **E. Kriegler**, T. Aboumahboub, et al. (2013) *The distribution of the major economies' effort in the durban platform scenarios*. Clim Change Econ 04: 1340009. doi: 10.1142/S2010007813400095

G. Luderer, R. C. Pietzcker, C. Bertram, **E. Kriegler**, M. Meinshausen, O. Edenhofer (2013) *Economic mitigation challenges: how further delay closes the door for achieving climate targets*. Environmental Research Letters, 8(3) 034033, doi: 10.1088/1748-9326/8/3/034033

E. Kriegler, O. Edenhofer, L. Reuster, G. Luderer, D. Klein (2013) *Is atmospheric carbon dioxide removal a game changer for climate change mitigation?* Climatic Change, 118(1): 45-57, doi: 10.1007/s10584-012-0681-4

M. G. W. Schmidt, H. Held, **E. Kriegler**, A. Lorenz (2013) *Climate policy under uncertain and heterogeneous climate damages*. Environmental and Resource Economics, 54(1): 79-99, doi: 10.1007/s10640-012-9582-2

2012 and earlier

K. Calvin, L. Clarke, V. Krey, G. Blanford, K. Jiang, M. Kainuma, **E. Kriegler**, G. Luderer, P. R. Shukla (2012) *The role of Asia in mitigating climate change: Results from the Asia modeling exercise*. Energy Economics, 34(3): S251-S260, doi: 10.1016/j.eneco.2012.09.003

G. Luderer, R. Pietzcker, **E. Kriegler**, M. Haller, N. Bauer (2012) *Asia's role in mitigating climate change: A technology and sector specific analysis with ReMIND-R*. Energy Economics, 34(3): S378-S390, doi: 10.1016/j.eneco.2012.07.022

E. Kriegler, B. C. O'Neill, S. Hallegatte, T. Kram, R. J. Lempert, R. H. Moss, T. Wilbanks (2012) *The need for and use of socio-economic scenarios for climate change analysis: a new approach based on shared socio-economic pathways*. Global Environmental Change, 22: 807-822, doi: 10.1016/j.gloenvcha.2012.05.005

A. Lorenz, **E. Kriegler**, H. Held, M. G. W. Schmidt (2012) *How to measure the importance of climate risk for determining optimal global abatement policies?* Climate Change Economics, 3(1): 1250004-2-1250004-28, doi: 10.1142/S2010007812500042

A. Lorenz, M. G. W. Schmidt, **E. Kriegler**, H. Held, (2012) *Anticipating Climate Threshold Damages*. Environmental Modeling and Assessment, 17 (1-2): 163-175, doi: 10.1007/s10666-011-9282-2

V. J. Schweizer, **E. Kriegler** (2012) *Improving environmental change research with systematic techniques for qualitative scenarios*. Environmental Research Letters, 7(4), doi: 10.1088/1748-9326/7/4/044011

E. Kriegler, M. Conestabile (2012) *Building consistency (interview)*. Nature Climate Change, 2: 702, doi: 10.1038/nclimate1671

E. Kriegler (2011) *Comment on "The status and prospects of renewable energy for combating global warming"*. Energy Economics, 33(4): 594-596, doi: 10.1016/j.eneco.2010.11.017

M. G. W. Schmidt, A. Lorenz, H. Held, **E. Kriegler** (2011) *Climate targets under uncertainty: Challenges and remedies*. Climatic Change, 104(3-4): 783-791, doi: 10.1007/s10584-010-9985-4

H. Held, **E. Kriegler**, K. Lessmann, O. Edenhofer (2009) *Efficient climate policies under technology and climate uncertainty*. Energy Economics, 31(1): S50-S61, doi: 10.1016/j.eneco.2008.12.012

E. Kriegler (2009) *Updating under unknown unknowns: An extension of Bayes' rule*. International Journal of Approximate Reasoning, 50(4): 583-596, doi: 10.1016/j.ijar.2008.09.005

E. Kriegler, J. Hall, H. Held, R. Dawson, H. J. Schellnhuber (2009) *Imprecise probability assessment of tipping points in the climate system*. Proceedings of the National Academy of Sciences of the United States of America (PNAS), 106(13): 5041-5046, doi: 10.1073/pnas.0809117106

D. Patino-Echeverri, P. Fischbeck, **E. Kriegler** (2009) *Economic and environmental costs of regulatory*

uncertainty for coal-fired power plants. Environmental Science & Technology, 43(3): 578-584, doi: 10.1021/es800094h

- H. Held, T. Augustin, **E. Kriegler** (2008) *Bayesian learning for a class of priors with prescribed marginals*. International Journal of Approximate Reasoning, 49(1): 212-233
- T. Lenton, H. Held, **E. Kriegler**, J. Hall, W. Lucht, S. Rahmstorf, H. J. Schellnhuber (2008) *Tipping Elements in the Earth's climate system*. Proceedings of the National Academy of Sciences of the United States of America (PNAS), 105(6): 1786-1793, doi: 10.1073/pnas.0705414105
- E. Kriegler** (2007) *On the verge of dangerous anthropogenic interference with the climate system?* Environmental Research Letters, 2: 011001, doi: www.iop.org/EJ/abstract/1748-9326/2/1/011001
- O. Edenhofer, N. Bauer, **E. Kriegler** (2005) *The impact of technological change on climate protection and welfare - Insights from the model MIND*. Ecological Economics, 54: 277-292
- E. Kriegler**, H. Held (2005) *Utilizing belief functions for the estimation of future climate change*. International Journal of Approximate Reasoning, 39: 185-209
- E. Kriegler**, T. Bruckner (2004) *Sensitivity analysis of emissions corridors for the 21st century*. Climatic Change, 66: 345-387

IPCC and Policy Reports

- Clarke L., K. Jiang, K. Akimoto, M. Babiker, G. Blanford, K. Fisher-Vanden, J.-C. Hourcade, V. Krey, **E. Kriegler**, A. Löschel, D. McCollum, S. Paltsev, S. Rose, P.R. Shukla, M. Tavoni, B. van der Zwaan, and D. P. van Vuuren, 2014: *Assessing Transformation Pathways*. In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- Krey V., O. Masera, G. Blanford, T. Bruckner, R. Cooke, K. Fisher-Vanden, H. Haberl, E. Hertwich, **E. Kriegler**, D. Mueller, S. Paltsev, L. Price, S. Schlömer, D. Ürge-Vorsatz, D. P. van Vuuren, and T. Zwickel, 2014: *Annex II: Metrics & Methodology*. In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- E. Kriegler**, K. Riahi, N. Petermann et al. (2014): *Assessing Pathways toward Ambitious Climate Targets at the Global and European Levels. A synthesis of results from the AMPERE project* Potsdam: AMPERE-Consortium, 30 p.
- M. Tavoni, **E. Kriegler**, K. Riahi, D.P. van Vuuren, N. Petermann et al. (2014). *Limiting Global Warming to 2°C, Policy findings from Durban Platform scenario analyses*.
- E. Kriegler**, I. Mouratiadou, G. Luderer G et al. (2014) *Roadmaps towards Sustainable Energy futures and climate protection: A synthesis of results from the RoSE project*. Potsdam Institute for Climate Impact Research, Potsdam
- 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, F. W. Zwiers (2010) *Guidance note for lead authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties*. IPCC Cross-Working Group Meeting on Consistent Treatment of Uncertainties. Jasper Ridge, CA, USA
- O. Edenhofer, **E. Kriegler**, N. Bauer (2002) *Szenarien zum Umbau des Energiesystems* (Scenarios for a transition of the energy system). External report to the German Advisory Council on Global Change (WBGU), in German, partly published in: Chapter 4.5.1, WBGU (2003) *World in Transition - Towards Sustainable Energy Systems*. London: Earthscan

Chapters in Books (peer reviewed)

- O. Edenhofer, R. Pietzcker, M. Kalkuhl, **E. Kriegler** (2010) *Price and quantity regulation for reducing greenhouse gas emissions*. In: Global Sustainability - A Nobel Cause. Eds.: H. J. Schellnhuber, M. Molina, N. Stern, V. Huber, S. Kadner. Cambridge, UK and New York, USA: Cambridge University Press
- O. Edenhofer, R. Pietzcker, M. Kalkuhl, **E. Kriegler** (2010) *Taxation instruments to reduce greenhouse gas emissions, and comparison with quantity instruments*. In: The Economics of Climate Change in China. Eds.: G. Fan, N. Stern, O. Edenhofer, S. Xu, K. Eklund, F. Ackerman, L. Li, K. Hallding. London: Earthscan
- E. Kriegler**, H. Held, T. Bruckner (2007) *Climate protection strategies under ambiguity about catastrophic consequences*. In: Advanced methods for decision-making and risk management in sustainability science. Eds.: J. Kropp, J. Scheffran, 3-42. New York: Nova Science Publishers

Articles in Conference Proceedings (peer reviewed)

- E. Kriegler** (2007) *Updating and Testing Beliefs: An Open Version of Bayes' Rule*. Proceedings of the 5th International Symposium on Imprecise Probabilities and Their Applications, Prague, 16-19 July 2007, 271-280
- N. Bauer, O. Edenhofer, H. Held, **E. Kriegler** (2004) *Uncertainty of the role of carbon capture and sequestration within climate change mitigation strategies*. Proceedings of the 7th International Conference on Greenhouse Gas Control Technologies. Volume 1: Peer-Reviewed Paper and Plenary Presentations. Cheltenham, UK: IEA Greenhouse Gas Programme 2005
- E. Kriegler**, H. Held (2003) *Climate Projections for the 21st Century Using Random Sets*. Proceedings of the 3rd International Symposium on Imprecise Probabilities and Their Applications, 345-360
- E. Kriegler**, T. Bruckner (2002) *Global and Annex I emissions corridors for the 21st century*. Integrated Assessment and Decision Support - Proceedings of the 1st Biennial Meeting of the International Environmental Modelling and Software Society (IEMSS 2002), Vol. 3, 151-156

Other Articles and Reports

- Luderer G, Leimbach M, Bauer N, **Kriegler E**, et al. (2013) *Description of the REMIND Model* (Version 1.5). SSRN Working Paper 2312844
- N. Arnell, T. Kram, T. Carter, K. Ebi, J. Edmonds, S. Hallegatte, **E. Kriegler**, R. Mathur, B. C. O'Neill, K. Riahi, H. Winkler, D. van Vuuren, T. Zwickel (2011) *A framework for a new generation of socioeconomic scenarios for climate change impact, adaptation, vulnerability, and mitigation research*. Scenario Framework Paper. Boulder: National Center for Atmospheric Research (NCAR). 42 p.
- E. Kriegler**, B. C. O'Neill, S. Hallegatte, T. Kram, R. Lempert, R. H. Moss, T. J. Wilbanks (2010) *Socio-economic scenario development for climate change analysis*. CIRED Working Paper DT/WP No. 2010-23
- K. Tanaka, **E. Kriegler**, T. Bruckner, G. Hooss, W. Knorr, T. Raddatz (2007) *Aggregated carbon cycle, atmospheric chemistry, and climate model (ACC2)*. Hamburg: Max Planck Institute for Meteorology, Reports on Earth System Science No. 40, 188 p.
- E. Kriegler** (2005) *Imprecise probability analysis for integrated assessment of climate change*. Ph. D. thesis, University of Potsdam, 258 p.

SELECTED PRESENTATIONS FROM 2010 - 2014

- 5 Dec 2014 ***IPCC AR5 - WG III contribution: selected key findings***
Visit of Representatives of the US House Committee on Energy and Commerce / Konrad-Adenauer Stiftung at PIK, Potsdam, Germany, 5 December 2014
- 18 Nov 2014 ***Scientific Working Group on EVALUATION AND DIAGNOSTICS: Overview and Developments***
IAMC Annual Meeting 2014, Hyattsville, MD, 19-21 November 2014
- 7 Nov 2014 ***Integrated Assessment Model Projections of Global Emissions Pathways for the 21st century***
Climate Risk Project Meeting, Harvard University, USA, 7 November 2014
- 5 Nov 2014 ***Die Rolle von Verfahren zur CO₂ Entnahme aus der Luft für den Klimaschutz***
Presentation to VDI visitors at PIK, Potsdam, Germany, 5 November 2014
- 14 Oct 2014 ***Requirements and challenges of limiting global warming to 2°C: Insights from recent integrated assessment model comparison studies and the IPCC AR5***
DIW Seminar on Energy and Climate Policy, Berlin, Germany, 14 October 2014
- 25 Sep 2014 ***Post 2020 climate agreements, climate policy co-benefits and transformational pathways - Implications of the 2°C target for the Durban Platform Negotiations***
LIMITS Final Conference, Brussels, 25 September 2014
- 8 Sep 2014 ***Scenario Development and Integrated Assessment Model Projections***
WCRP Workshop, Bern, Switzerland, September 8, 2014
- 19 June 2014 ***Climate Change 2014, Mitigation of Climate Change: Key Findings***
WMO EC-66, Geneva, Switzerland, 19 June 2014
- 19 June 2014 ***Key messages and issues arising from the WG III Report***
Presentation of IPCC AR5 WGII & III Reports, Geneva Environmental Network, Geneva, June 19, 2014
- 4 June 2014 ***Will economic growth and fossil fuel scarcity help or hinder climate stabilization: Results from the RoSE project***
International Energy Workshop, Beijing, China, June 4-6, 2014
- 4 June 2014 ***Findings of the 5th Assessment Report of IPCC Working Group 3 and Recent Model Comparison Studies on Mitigation Pathways***
Keynote, International Energy Workshop, Beijing, China, June 4-6, 2014
- 14 May 2014 ***What role for decision making under uncertainty in climate policy analysis?***
Uncertainty in climate change modeling and policy analysis ADVANCE Expert Workshop, Milan, May 14, 2014

- 13 Mar 2014 ***The Challenge of Mitigating Climate Change: Insights from Recent Integrated Assessment Model Comparison Studies***
Worldbank & PIK Capacity Building Workshop for Regional Scientists, Potsdam, 13 March 2014
- 6 Mar 2014 ***Anforderungen langfristiger Klimaschutzziele: Ergebnisse aktueller Modellvergleichsstudien zu Transformationsszenarien***
DKK Klima-Frühstück, 6 March 2014
- 21 Jan 2014 ***The AMPERE Project: Overview, Diagnostics, and the Challenge of a Fragmented Climate Policy Landscape***
AMPERE Final Conference, 21 Jan 2014, Brussels, Belgium
- 21 Jan 2014 ***Europe's role in future global climate policy***
Stakeholder conference, 21 Jan 2014, CEPS, Brussels
- 20 Nov 2013 ***Overview of the ADVANCE project – Who are we? What for?***
Joint ADVANCE-COMPLEX meeting, 20-22 Nov 2013, Laxenburg, Austria
- 11 Nov 2013 ***Implications of the 2°C target for a global climate agreement: Results from the LIMITS multi-model study on Durban Platform scenarios***
European Commission Side Event, UNFCCC 19th Conference of Parties, 11 Nov 2013, Warsaw
- 28 Oct 2013 ***Key Results from Recent Model Intercomparison Projects***
IAMC Annual Meeting, 28-30 Oct 2013, Tsukuba, Japan
- 19 Sep 2013 ***Integrated Assessment of Mitigation and Carbon Dioxide Removal Options***
CEMICS Workshop, 19-20 Sep 2013, Potsdam, Germany
- 1 Aug 2013 ***Overshoot Scenarios: Results from and Questions for Integrated Assessment***
Climate Change Impacts and Integrated Assessment Workshop XIX, 22 Jul – 2 Aug 2013, Snowmass, USA
- 13 Jun 2013 ***Requirements of Climate Stabilization: Key results from the RoSE project***
RoSE Side Event, UNFCCC SB38, 13 Jun 2013, Bonn, Germany
- 12 Jun 2013 ***Making or Breaking Climate Targets: The Stakes for the EU as Early Mover on Climate Stabilization***
2nd AMPERE Stakeholder Workshop, 12 Jun 2013, Brussels, Belgium
- 28 May 2013 ***Model Diagnostics***
AMPERE-PIAMDDI Validation Workshop, 28-29 May 2013, Seville, Spain
- 15 Apr 2013 ***Is atmospheric carbon dioxide removal a game changer for climate change mitigation?***
Global Carbon Project – IIASA Workshop: Negative Emissions and the Carbon Cycle, 15 Apr 2013, Laxenburg, Austria
- 13 Feb 2013 ***Can we still meet 2°C with global climate action?***
The LIMITS study on implications of Durban Action Platform scenarios

2nd LIMITS Stakeholder Workshop, 13 Feb 2013, Amsterdam,
The Netherlands

- 12 Nov 2012 ***Introduction to AMPERE and integrated assessment model diagnostics***
IAMC Meeting, 12 Nov 2012, Utrecht, The Netherlands
- 25 Jul 2012 ***Exploration of the SSP space with the ReMIND-MAgPIE integrated assessment framework***
SSP Workshop, 25 Jul 2012, Snowmass, CO, USA
- 22 May 2012 ***Overview of the AMPERE project***
AMPERE Stakeholder Workshop, 22 May 2012, Venice, Italy
- 15 May 2012 ***SSP1 vs. SSP5: Application in the ReMIND-MAgPIE integrated assessment framework***
Netherlands Meeting on New Socioeconomic Pathways for Climate Change Research, 14-16 May 2012, The Hague, The Netherlands
- 3 May 2012 ***Overview of the AMPERE project and its work on model diagnostics***
Integrated Assessment Model Diagnostics Workshop, 3 May 2012, Stanford, CA, USA
- 24 Feb 2012 ***Climate policy outreach project: Key results from a global (model) perspective***
CPO Public and Stakeholder Meeting, 24 Feb 2012, Beijing, China
- 2 Nov 2011 ***A framework for a new generation of socio-economic scenarios: Overview of the framework paper***
Workshop on New Socio-economic Pathways for Climate Change Research, 2-4 Nov 2011, Boulder, CO, USA
- 6 Oct 2011 ***A framework for a new generation of socio-economic scenarios for climate change impact, adaptation, vulnerability and mitigation research***
IAMC 2011 Annual Meeting, 6-7 Oct 2011, Vienna, Austria
- 1 Aug 2011 ***What role for uncertainty in the integrated assessment of climate change?***
Workshop on Uncertainty Analysis in Integrated Assessment Models, 1-2 Aug 2011, Snowmass, CO, USA
- 27 Jul 2011 ***Key challenges for integrated assessment of the energy-land nexus***
Snowmass Workshop on Energy, Land and Water in the Context of a Changing Climate, 27-29 Jul 2011, Snowmass, CO, USA
- 16 Jul 2011 ***A framework for a new generation of socio-economic scenarios for climate change impact, adaptation, vulnerability and mitigation research: Part II - Shared socio-economic pathways and climate policy assumptions***
Workshop to explore the New SSP/SMA approach, 16-17 Jul 2011, Changwon City, Korea
- 12 Jul 2011 ***AR5 Guidance on Consistent Treatment of Uncertainties***

- IPCC WGIII First Lead Author Meeting, 12-15 Jul 2011, Changwon City, Korea
- 10 Jul 2011 ***Overview on scenarios from ADAM, RECIPE, RoSE, EMF24 Global Study, AMPERE, LIMITS***
Presentation at the WGIII Expert Meeting on Scenarios as an Integrating Element in WGIII AR5 (SIE-1), 10-11 Jul 2011, Changwon City, Korea
- 29 Jun 2011 ***IPCC SRREN and AR5 preparations: Latest renewables scenarios insights***
Joint IRENA-RETD workshop: Recent energy sector developments and their impact on renewable energy prospects, 29 Jun 2011, Bonn, Germany
- 29 Mar 2011 ***Comparison of mitigation efforts and costs: Overview of results from the Asian Modeling Exercise***
4th AME meeting, 29-31 Mar 2011, Xian, China
- 25 Feb 2011 ***Roadmaps towards Sustainable Energy Futures (RoSE): Motivation and overview of the project***
Workshop on "Sustainable Energy Future: Opportunities for Chinese-German Cooperation", 25 Feb 2011, Stiftung Mercator, Essen, Germany
- 9 Feb 2011 ***Neue sozio-ökonomische Szenarien für den AR5: Ergebnisse des IPCC Szenarienworkshops & nächste Schritte***
Deutsche IPCC-Tagung, 9-10 Feb 2011, Raunheim, Germany
- 2 Nov 2010 ***Socio-economic Scenario Development for Climate Change Analysis***
IPCC Workshop on Socio-Economic Scenarios, 1-3 Nov 2010, Berlin, Germany
- 29 Oct 2010 ***Overview of the AMPERE project***
IAMC Annual Meeting, 28-29 Oct 2010, Washington DC, USA
- 8 Oct 2010 ***Forschungsbereich III „Nachhaltige Lösungsstrategien“: Forschungsfragen und aktuelle Ergebnisse***
Visit of BMBF at the Potsdam Institute for Climate Impact Research, 8 Oct 2010, Potsdam, Germany
- 6 Oct 2010 ***The climate change challenge and response options***
Visit of US School of Journalists at the Potsdam Institute for Climate Impact Research, 6 Oct 2010, Potsdam, Germany
- 10 Sep 2010 ***Vom Klimawandel zum Klimaschutz: Herausforderungen und Lösungsansätze***
Joint WHU - Otto Beisheim School of Management & Potsdam Institute for Climate Impact Research meeting, 10 Sep 2010, Potsdam, Germany
- 4 Aug 2010 ***Accounting for Power Sector Variability in the REMIND Model (with F. Ueckerdt)***
EMF Workshop on Climate Change Impacts and Integrated Assessment, 27 Jul-4 Aug 2010, Snowmass, CO, USA

- 29 Jul 2010 ***Perspective on the Use(fullness) of IAMs in the Policy Process***
EMF Workshop on Climate Change Impacts and Integrated Assessment,
27 Jul-4 Aug 2010, Snowmass, CO, USA
- 27 Jul 2010 ***Socio-economic Scenario Development for Climate Change Analysis***
EMF Workshop on Climate Change Impacts and Integrated Assessment,
27 Jul-4 Aug 2010, Snowmass, CO, USA
- 22 Jun 2010 ***The effect of uncertainty about catastrophic climate damages on
optimal abatement levels revisited***
International Energy Workshop 2010, 21-23 Jun 2010, Stockholm,
Sweden
- 20 Apr 2010 ***Exploring technology and policy implications: A collection of relevant
experiments with ReMIND***
EMF24 Project Kick-off Meeting, 20-23 Apr 2010, Stanford, CA, USA
- 4 Feb 2010 ***1st & 2nd best policies. Relevant aspects for mitigation and adaptation***
NAS Workshop on Describing Socio-Economic and Environmental
Futures for Climate Change Research and Assessment, 4-5 Feb 2010,
Washington DC, USA