

| starting | speaker | topic | <i>Session Chair:</i> | <i>Kai Lessmann</i> |
|-----------------|-----------------------------|--|-----------------------|---------------------|
| 10:25 | Antje Weitz | Opening of the Retreat | | |
| 10:30 | Jochem Marotzke | <i>Introduction: State of the IMPRS-ESM</i> | | |
| 10:45 | Thomas Bruckner | <i>Introduction: Why and how to integrate 'human dimension' into ESM?</i> | | |
| 11:30 | David Anthoff | Structural Uncertainty and Optimal Climate Change Policy | | |
| 11:45 | Dritan Osmani | The Free-riding and Stability of International Environmental Agreements | | |
| 12:00 | Maria Paz Chidichimo | Eastern boundary baroclinic variability and the Meridional Overturning Circulation at 26.5°N | | |
| 12:15 | Jana Sillmann | The influence of atmospheric blocking conditions on extreme temperature and precipitation events in Europe | | |
| 12:30 | <i>Lunch</i> | | | |

| starting | speaker | topic | <i>Session Chair:</i> | <i>Dritan Osmani</i> |
|-----------------|-----------------------------|---|-----------------------|----------------------|
| 13:30 | Kai Lessmann | Participation in Climate Coalition subject to technological Issue Linkage | | |
| 13:45 | Kerstin Jantke | A tool to optimize land allocation for biodiversity conservation | | |
| 14:00 | Christine Schleupner | Integration of economic aspects into a GIS-based spatial distribution and site selection model for wetland conservation | | |
| 14:15 | Alvaro Calzadilla | GTAP-IW: A global CGE model for the assessment of water resources and trade | | |
| 14:30 | Ryan Pavlick | Beyond Plant Functional Types and Empirical Relationships: A Different Representation of the Biosphere | | |
| 14:45 | Timm Sauer | Land-Use and Environmental Concerns in Scenarios of Global Change – The KLUM-W model | | |
| 15:00 | <i>Coffee break</i> | | | |

| starting | speaker | topic | <i>Session Chair:</i> | <i>David Anthoff</i> |
|-----------------|---|--------------|-----------------------|----------------------|
| 15:45 – 17:45 | discussion science question: 'Why and how to integrate 'human dimension' into Earth system modelling?' | | | |
| 18:00 | <i>Dinner</i> | | | |
| 19:30 | (optional) 'City' of Buchholz or use of darts, bowling court and other facilities available to hotel guests | | | |

| starting | speaker | topic | Session Chair: | Jörg Winterfeldt |
|----------|-------------------------|---|----------------|------------------|
| 09:00 | Jonas Bhend | Consistency of observed temperature and precipitation trends in the Baltic catchment area with anthropogenic climate change scenarios | | |
| 09:15 | Birgit Hünicke | Climate Impact on Baltic Sea level changes -Trends in the amplitude of Baltic Sea level annual cycle- | | |
| 09:30 | Tobias Lau | The development of a dynamical wetlands hydrology scheme to investigate their role under climate change conditions | | |
| 09:45 | Nils Fischer | Anomalous dispersion of pulse trains in a reaction-diffusion-model for excitable media | | |
| 10:00 | Daniel Hernandez | Energetics responses to an increase in greenhouse-gas concentration | | |
| 10:15 | Andreas Haensler | Interactions of future land use change and the local and regional climate in southern Africa | | |
| 10:30 | <i>Coffee break</i> | | | |

| starting | speaker | Topic | Session Chair: | Tim Erbrecht |
|----------|--|--|----------------|--------------|
| 11:15 | Rita Seiffert | Studying the impact of small-scale atmospheric fluctuations on the temperature response to CO ₂ forcing within a stochastic framework | | |
| 11:30 | Malte Heinemann | Climate and Ocean Circulation at the Paleocene/Eocene Boundary and Their Sensitivity to Atmospheric CO ₂ | | |
| 11:45 | Aiko Voigt | The Transition From the Present-Day Climate to a Snowball Earth Simulated With a Comprehensive Climate Model | | |
| 12:00 | Hui Wan | Developing and testing a hydrostatic atmospheric dynamical core on triangular grid | | |
| 12:15 | Claas Teichmann | Climate and Air Pollution Modelling in South America with Emphasis on Megacities | | |
| 12:30 | Manu Thomas | The climate impact of Mt. Pinatubo eruption: Model sensitivity to SSTs and the QBO | | |
| 12:45 | Summary & discussion of the morning sessions | | | |
| 13:00 | <i>Lunch</i> | | | |

| starting | speaker | Topic | <i>Session Chair:</i> | <i>Birgit Hünicke</i> |
|-----------------|---------------------------|--|-----------------------|-----------------------|
| 14:00 | Declan O'Donnell | Towards the assessment of the climate impact of organic aerosols | | |
| 14:15 | Dorothea Banse | The influence of aerosols on North Atlantic cyclones | | |
| 14:30 | Nicole Sander | Modelling African Easterly Waves with the Lokal-Modell of the Deutscher Wetterdienst (<i>MSc thesis</i>) & Simulations of glacial inception and terminations using an Earth System Model of intermediate complexity (<i>PhD thesis</i>)” | | |
| 14:45 | Swati Gehlot | Feedbacks between convection and climate: Analysis with global modeling and satellite observations | | |
| 15:00 | Heinz Jürgen Punge | A trajectory study of transport modulation by the QBO | | |
| 15:15 | Ole Ross | Atmospheric tracer modelling supporting verification of nuclear arms control | | |
| 15:30 | <i>Coffee break</i> | | | |

| starting | Topic | <i>Session Chair:</i> | <i>Florian Rauser</i> |
|-----------------|---|-----------------------|-----------------------|
| 16:00 | discussion of administrative questions with advisors and students | | |
| 17:30 | ExeCom meeting (for other participants possibility to schedule Advisory Panel meetings) | | |
| 19:30 | <i>Dinner</i> | | |

| starting | speaker | topic | Session Chair: | Martin Jung |
|----------|------------------|---|----------------|-------------|
| 09:00 | Jörg Winterfeldt | Is there an added value for marine wind fields derived from regional atmospheric models? | | |
| 09:15 | Kathrin Riemann | Characteristics of Convective Available Potential Energy (CAPE) in ERA-40 Reanalysis Data | | |
| 09:30 | Juliane Otto | Interactions between atmosphere, vegetation and ocean at northern high latitudes | | |
| 09:45 | David Lapola | Modelling of future land-use/cover in world key regions for bioenergy, food and conservation: an spatial analysis | | |
| 10:00 | Tim Erbrecht | What are the spatial and biogeochemical consequences of a global bioenergy system? Analyses using a dynamic global vegetation model | | |
| 10:15 | Julia Pongratz | Anthropogenic land cover change in the last millennium - assessing its extent and consequences for climate. | | |
| 10:30 | Coffee break | | | |

| starting | speaker | Topic | Session Chair: | Rlta Seiffert |
|----------|--|--|----------------|---------------|
| 11:15 | Martin Jung | Diagnostic assessment of European gross primary production | | |
| 11:30 | Ursula Heyder | Transitions of the biosphere under climate change: Risk assessment of Amazon forest Dieback | | |
| 11:45 | Maarten Braakhekke | Towards a more realistic, three-dimensional description of the soil system in global carbon cycle models | | |
| 12:00 | Bakr Badawy | Quantifying Carbon Processes of the Terrestrial Biosphere in a Global Atmospheric Inversion using in-situ and remote sensing data. | | |
| 12:15 | Bikash Parida | Analysing the effect of severity and duration of Agricultural drought on crop performance using Terra/MODIS Satellite data and Meteorological data | | |
| 12:30 | Valentina Sicardi | Future Change in ocean circulation inferred from atmospheric oxygen | | |
| 12:45 | Summary & discussion of the morning sessions | | | |
| 13:00 | Lunch | | | |

| starting | speaker | Topic | Session Chair: | Claas Teichmann |
|----------|--|---|----------------|-----------------|
| 14:15 | Florian Rauser | Error Estimation in Geophysical Fluid Dynamics using Adjoint Techniques | | |
| 14:30 | Torsten Weber | Impact of inhomogeneities on non-linear cloud processes | | |
| 14:45 | Angelika Heil | Indonesian Forest and Peat Fires: Emissions, Air Quality, and Human Health | | |
| 15:00 | Krzysztof Katrynski | Atmospheric volatile organic compounds (VOCs), concentrations and fluxes over a central Siberian forest | | |
| 15:15 | Summary & discussion of the afternoon sessions and comprehensive summary discussion of the Retreat | | | |
| 16:00 | End; return to Hamburg by bus shuttle | | | |