

7.1.3 *Schedule of annual retreat 2004 (Lübeck)*

Science Question:

”Is the Earth System able to adapt to human induced perturbations, and how can we address issues of perturbations?”

<i>Day 1, Monday 01 November 2004</i>		
<i>Plenary Session - First Key Note Lecture</i>		
Time	Theme	Speaker
10:00 – 10:10	Welcome and introduction	
10:10 – 10:40	Earth System Science Modelling: economics – state of the art and future direction –	Richard Tol
10:40 - 10:50	<i>Discussion</i>	
<i>Plenary Session: Student Presentations (15 min. + 5 min. discussion)</i>		
10:50 – 11:10	The Ocean Carbon Cycle Model in a Coupled Ocean-Atmosphere Model	Patrick Wetzel; <i>MPI-M</i>
11:10 – 11:30	Coffee break	
11:30 – 11:50	Dimethylsulphide emission – first results from a Coupled Ocean-Atmosphere Model	Silvia Kloster; <i>MPI-M</i>
11:50 – 12:10	Multidecadal variability of Thermohaline Circulation	Xiuhua Zhu; <i>MPI-M</i>
12:10 – 12:30	Small-scale wave simulations with different downscaling techniques	Lidia Gaslikova; <i>GKSS</i>
12:30 – 12:50	Global scale Modelling of N ₂ O and NO emissions from soils	Elke Stehfest; <i>Uni. Kassel</i>
12:50 – 13:50	Lunch Break	
<i>Plenary Session: Student presentations combining review and own research (time window includes time for discussion)</i>		
13:50 – 14:25	Crops and natural vegetation within an integrated assessment model The Ecobice perspective	Luca Criscuolo; <i>MPI-BGC</i>
14:25 – 14:55	Ice sheets and the climate of the last glacial cycle studied with a complex Earth System Model	Miren Vizcaino; <i>MPI-M</i>
14:55 – 15:15	Signatures of indirect aerosol effect in the thermal spectral range	Abhay Devasthale; <i>Uni. HH</i>
15:15 – 15:45	Coffee break	

<i>Working Group Session: Student presentations and discussion of the science questions and key words with respect to Earth System Modelling</i>	
15:50 – 18:00	Working Groups (WGs)
WG I: “Atmosphere-Ocean Exchange”	Marco Giorgetta (chair), Francesca

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		Guglielmo (co-chair)
WG II: “Atmosphere – Biosphere Exchange		Olaf Krüger (chair), Luca Criscuolo (co-chair)
WG III: “Anthropogenic effect in global Modelling”		Johann Jungclaus (chair), Kerstin Ronneberger (co-chair)
15:50 to 16:10	WG I	Climate Impacts on Air pollution of the Southern Hemisphere Adetutu Aghedo; <i>MPI-M</i>
	WG II	CO ₂ Fluxes and Concentration Changes Over Eurosiberia: A study using terrestrial biosphere models and the regional atmosphere model REMO Caroline Narayan; <i>MPI-M</i>
	WG III	Regional Climate Change in Glaciated Regions: Implications for the Hydrological Cycle Sven Kotlarski; <i>MPI-M</i>
16:10 to 16:30	WG I	Evaluation of Sea Level Rise Impacts in the case of Martinique Christine Schleupner; <i>Uni. HH</i>
	WG II	Impacts of urbanization on the climate in Europe Kristina Trusilova; <i>MPI-BGC</i>
	WG III	Do aerosols change cyclone tracks over the North Atlantic Dorothea Banse; <i>MPI-M</i>
16:30 to 16:50	WG I	Benefit transfer over time of ecosystem values, the case of forest recreation in Denmark Marianne Zandersen; <i>Uni. HH</i>
	WG II	Global Modelling of fresh water resources Ingrid Engvall; <i>MPI-M</i>
	WG III	Atmospheric Implications of Peat Fire Emissions: From a Regional to a Global Perspective Angelika Heil; <i>MPI-M</i>
16:50 – 17:40		<i>Discussion (science questions and keywords)</i>
17:40 – 18:00		Preparation of review WG; presentations and discussions
18:00 – 19:00		Dinner
<i>Day 2, Tuesday 02, November 2004</i>		
08:30		Breakfast
08:30 – 09:00		Perspectives on Earth System Modelling: the atmospheric dimension – state of the art and future direction Guy Brasseur; <i>MPI-M</i>
09:00 – 09:10		<i>Discussion</i>
09:10 – 09:55		<i>Interims Reviews incl. Discussion</i> WG I ‘Atmosphere-Ocean Exchange’ WG II ‘Atmosphere-Biosphere Exchange’

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	WG III 'Anthropogenic Effects'		
09:55 – 10:30	Coffee Break and split into Working Groups		
<i>Working Group Session:</i> Student presentations and discussion of the science questions and key words with respect to Earth System Modelling			
10:30 – 12:30	Working Groups (WGs)		
WG I: "Atmosphere-Ocean Exchange"			Marco Giorgetta (chair), Qian Li (co-chair)
WG II: "Atmosphere – Biosphere Exchange			Olaf Krüger (chair), Patrick Wetzel (co-chair)
WG III: "Anthropogenic effect in global Modelling"			Johann Jungclaus (chair), Sven Kotlarski (co-chair)
10:30 to 10:50	WG I	Modelling the Climate Impact of Mt. Pinatubo Eruption	Manu Ana Thomas; <i>MPI-M</i>
	WG II	The oceanic emission of CHBr ₃ and its effect on the global budget of tropospheric Br	Gabriela Santos; <i>MPI-M</i>
	WG III	Climate-vegetation interactions in a paleoclimate earth system model	Guy Schurgers; <i>MPI-M</i>
10:50 to 11:10	WG I	Using a coupled atmosphere-ocean 3D model to study the global distribution and fate of Persistent Toxic Substances	Francesca Guglielmo; <i>MPI-M</i>
	WG II	A scenario study of the Lower Elbe region	Iris Grossmann; <i>GKSS</i>
	WG III	Origins of the low frequency variability in the Pacific basin	Daniela Matei; <i>MPI-M</i>
11:10 to 11:30	WG I	Three years of measurements of trace gases over Bialystok (north-eastern part of Poland). Volatile Organic Compounds in the terrestrial carbon balance	Krzysztof Katrynski, <i>MPI-BGC</i>
	WG II	Identification of weather extremes in the climate simulations of the General Circulation Model ECHAM5/MPI-OM	Jana Sillmann; <i>MPI-M</i>
	WG III	Transport and deposition of Indonesian volcanic sulfur	Melissa Pfeffer; <i>MPI-M</i>
11:30-12:30	Discussion (<i>science questions and key words</i>)		
12:30-13:30	Lunch break		
13:30-16:30	Working Groups		
WG I "Atmosphere-Ocean Exchange			Marco Giorgetta (chair), Marianne Zandersen (co-

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			chair)
WG II “Atmosphere – Biosphere Exchange			Olaf Krüger (chair), Lidia Gaslikova (co-chair)
WG III “Anthropogenic Effect in Global Modelling”			Johann Jungclaus (chair), Peter Link (co-chair)
13:30 to 13:50	WG I	Spatial Patterns of Land Use Change - Towards a Global Analysis	Maik Heistermann , <i>Uni. Kassel</i>
	WG II	Water Cycle and Energy Budget over the Tibetan Plateau. Reanalysis and Simulations	Xuefeng Cui ; <i>MPI-M</i>
	WG III	Dynamic Sea Level Variations and Meridional Overturning Circulation	Felix Landerer ; <i>MPI-M</i>
13:50 to 14:10	WG I	Real Time Ocean Tides	Philipp Weiss ; <i>MPI-M</i>
	WG II	Modelling the Impact of Climate Change on Flood Events	Kerstin Schulze ; <i>Uni. Kassel</i>
	WG III	Effect of land use changes on the carbon balance of Europe	Martin Jung ; <i>MPI- BGC (guest student)</i>
14:10 to 15:00	WG I	Climatological Analysis of Planetary Wave Propagation in Northern Hemisphere Winter – Process- Oriented Validation of GCM	Qian Li ; <i>MPI-M</i>
	WG II	Steps towards Integrated Global Land Use Modelling	Christoph Müller ; <i>PIK</i>
	WG III	Carbon Sequestration in International Climate Policy	Martina Jung ; <i>HWWA</i>
15:00 – 15:30		Coffee break	
15:30 – 16:30		Discussion (<i>science questions and key words</i>)	
<i>Plenary Session:</i> <i>Interims report on presentations and discussions within the working groups –Interims Review</i>			
16:30 – 16:40		WG I “Atmosphere-Ocean Exchange”	
16:40 – 16:50		WG II “Atmosphere Biosphere Exchange”	
16:50 – 17:00		WG III “Anthropogenic Effects”	
<i>End of Sessions for Tuesday, November 02</i>			
17:00 – 18:30		Preparation: review WG presentation and discussion	Executive Committee- Meeting
18:30 – 19:30		Dinner	
20:00		Social “get together” (tour ‘Old-City of Luebeck’)	
<i>Day 3, Wednesday, 03 November 2004</i>			

<i>Plenary Session - Third Key Note Lecture</i>			
Time		Theme	Speaker
08:30 – 09:00		Earth System Modelling: biospheric dynamics, state of the art and perspectives for the future	Wolfgang Cramer; <i>PIK</i>
09:00 – 09:10		<i>Joint session – Discussion</i>	
09:10 – 09:15		Split into WGs	
<i>Working Group Session: Student presentations and discussion of the science questions and key words with respect to Earth System Modelling</i>			
WG I “Atmosphere-Ocean Exchange”		Marco Giorgetta (chair), Gabriela Santos (co-chair)	
WG II “Atmosphere – Biosphere Exchange”		Olaf Krüger (chair), Elke Stehfest (co-chair)	
WG III “Anthropogenic Effect in Global Modeling”		Johann Jungclaus (chair;) Martina Jung (co-chair)	
09:15 to 09:35	WG I	Simulating the Adoption of Fuel Cell Vehicles	Malte Schwoon; <i>MPI-M</i>
	WG II	Biased Technological Progress in Economic Models	Kai Lessmann; <i>PIK</i>
	WG III	The global agricultural land use model KLUM	Kerstin Ronneberger; <i>Uni. HH</i>)
09:35 to 09:55	WG I	Aggregated Carbon Cycle, Atmospheric Chemistry, and Climate (ACC ²) Model developed for ECOBICE	Katsumasa Tanaka; <i>MPI-M</i>
	WG II	Atmospheric CO ₂ , Mount Pinatubo and the Terrestrial Biosphere	Tim Erbrecht; <i>PIK</i>
	WG III	Agricultural Productivity and Climate An International Perspective	Xinjuan (Jessica) Zuo; <i>MPI-M</i>
10:15	10:45	<i>Coffee break</i>	
10:45	11:45	Discussion science (questions and keywords)	
11:45 to 12:00	WG I	Preparation of Summary Report	
	WG II	Preparation of Summary Report	
	WG III	Preparation of Summary Report	
<i>Plenary Session: Summary report on presentations and discussions within the working groups; Conclusions</i>			
Summery Report			
13:00 to 14:00	WG I	„Atmosphere-Ocean Exchange”	
	WG II	„Atmosphere-Biosphere Exchange”	
	WG III	“Anthropogenic Effects”	

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14:00 – 16:00	<p><i>Discussion of the science questions: Is the Earth System able to adapt to human induced perturbations, and how can we address issues of perturbations?</i></p> <ul style="list-style-type: none">- research gaps- research strategy and direction for studies by the ‘next generation’ of Earth System School students <p><i>Review retreat: discussion and suggestions for retreat of 2005</i></p>
16:00	<i>End</i>

7.2.5 *Summer Schools attended by the doctoral students*

Number IMPRS-ESM Students particip.	Name Summer School	Year	Country
4	Integrated Regional Impact Studies in the European North (IRISEN II)	2002	Sweden
1	Climate Variability from Observation to Prediction	2002	Switzerland
1	BWL 1 – „General Management“	2003	Germany
2	SOLAS Summer School 2003	2003	France
1	Integrated Assessment of Vulnerable Ecosystems under Global Change	2003	France
1	ICE SHEETS AND GLACIERS IN THE CLIMATE SYSTEM.	2003	Italy
2	Paleoclimate: Combining observations and dynamics	2003	Italy
2	EU Advanced Summer Course in “Integrated assessment”	2003	Netherlands
3	2 nd International NCCR Climate Summer School: “Climate Change: Impacts on Terrestrial Ecosystems” Grindelwald	2003	Switzerland
1	Wengen-2003 Workshop "Regional Climatic Change in Europe: Processes and Impacts	2003	Switzerland
1	HOLIVAR Training course “Qualitative climate reconstructions and data-model comparisons”	2003	UK.
1	The Oxford/RAL Spring School in “Quantitative Earth Observation”	2003	UK
5	TIAS Summer School: Integrated Assessment for Environmental Management	2004	Germany
1	Seminaire Europeen de Statistique (SemStat2004)	2004	Germany
1	SOLAS summer school 2004	2004	France
2	2 nd ENVISAT Summer School on Earth System Monitoring and Modelling. “Satellite data assimilation and use”	2004	Italy
1	Mediterranean School on Mesoscale Meteorology: “Mesoscale Structures and Cyclones”	2004	Italy
6	3 rd International NCCR Climate Summer School; “Climate Variability: From Observation to Prediction”	2004	Switzerland

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