



# School of Integrated Climate System Sciences



# PhD Students Retreat 02

February 24 to 25, 2010

Gut Gremmelin, Am Hofsee 33, 18279 Gremmelin, Germany



The objectives of this meeting are (1) to provide innovative perspectives of the climate system, (2) to become familiar with the objectives of new SICSS PhD students, and (3) to stimulate a beneficial exchange between PhD students by e.g. triggering presentations.

[All contributions should be given in English]

## Wednesday, 24.02.2010.

7:30	Departure at Geomatikum
10:00 - 10:30	Arrival at Gut Gremmelin, welcome coffee
10:30 - 11:00	Lecture 1
Hans von Storch	Hot-spots of Integrated Climate System Sciences
11:00 - 12:30	Session 1 (10 minutes presentations plus 5 minutes discussion) Introduction of new PhD Students (Atmosphere)
Sebastian Bathiany	Detecting multiple equilibria of vegetation cover
Thomas Raub	Prognosis of future regime shifts in the ecosystem of the central Baltic Sea
Francesco Ragone	Stochastic Parameterization of Subgrid Processes in GCMs
Seshagiri Rao Kolusu Atmospheric modeling of methyl halide emissions	
Daria Schönemann	Dynamical system analysis in a conceptual box-model of tropical cyclones
Oliver Krüger	Informational value and stationary of air pressure proxies of mid latitude storminess
12:30 - 14:30	Lunch and walk
14:00 - 15:30	Session 2 (10 minutes presentations plus 5 minutes discussion) Introduction of new PhD Students (Geophysics, biogeochemistry)
Gholomali Hoshyarip	our Volcanic iron bio-availability and its climate impact
Armine Avagyan	Dissolved organic and inorganic carbon dynamics in pore waters of mires in Russia
Sebastian Zubrzycki	Pools and mobilization of organic matter in permafrost affected soils of the Lena River Delta
	Creation of working groups (maximal 3) Identification of session chairs of the working groups

15:30 - 16:00 Coffee break

16:00 - 17:30 Session 3: Parallel working groups (Maximal 3 groups)

(Up to 5 impulse ppt slides per student on key questions/findings)

Chair(s) Session 3.1: NN

Chair(s) Session 3.2: NN

Chair(s) Session 3.3: NN

Participants for session 3.1 or 3.2 or 3.3

Benjamin Bechtel Remote sensing of urban canopy parameters for enhanced modelling

Christian Daneke Urban climatology and urban system modelling

Mikhail Itkin Precipitation retrieval over land using multi-sensor satellite records

Bente Tiedje Predicting ocean and mass volume transport based on oceanic data

assimilation

Stavroula Biri Estimation of frequency-wavenumber statistics of oceanic stochastic

processes

Monika Barcikowska Tropical cyclone hindcasts for SE Asia and Nortwestern Pacific for

dynamic downscaling methods in regional climate model assessment

Ronny Lauerwald Quantification of transport and retention of dissolved, geogenic matter

in river

Thorben Amann The Elbe estuary as a transitino zone between terrestrial and marine

systems

Ina Lorkowski The carbon pump of the Northwest European shelf – Climate and

eutrophication induced variability of the plankton dynamics

Bettina Walter Adaptation of spring bloom building phytoplankton species of the

North Sea on different stress factors initiated by climate change"

Claudia Günther Early life-stages of the warm-water species sardine and anchovy in

the North Sea

Ralph Rösner Response of plankton dynamic to inter annual climatic variation and

trend

Alexandra Kroll Modelling the life cycle of coastal- and shelf sea- phytoplankton:

Dynamics on seasonal and interannual time scales

Sebastian Sonntag Modelling biological-physical feedback mechanisms in marine

systems

Stefan Reiser Klimabedingte VeRbreitungsAenderuNGEn von kommerziell wichtigen

FiScH- und InVertebraTenbeständen in der Nordsee

Peter Schreiber Fluxes of the trace gases methane and carbon dioxide between

surface and atmosphere in high latitude peatlands

Inken-Marie Preuss Impact of climate change on trace gas fluxes in northern wetlands: In

situ studies for up-scaling methane emission measurements to the

climate model gird scale

Marion Vanselov-Algan Hydrology. carbon and nitrogen fluxes of a peatland In Northern

Germany under climate change

Dan Yan Land use change in Poyat Region, China and impact of climate

change

Laura Niederdrenk The hydrologic cycle of the Arctic and its variation

Wenke Wegner Power and responsibility in environmental policy making

Jana Peters Robustness and conflict potential of long term CO<sub>2</sub> emissions

scenarios

Wiebke Probst Reactions to climate change: The economics of mitigation and

adaptation

17:30 - 18:00 Lecture 2

Eva-Maria Pfeiffer Pedosphere, the 7. sphere in the climate system

18:00 – 20:00 **Joint Dinner** 

20:00 – 21:30 **Joint evening** 

#### Thursday, 26.02.2010

<b>8:30 - 9:00</b> Oliver Dilly	Lecture 3 Sustainability impact assessment
9:00 - 9:15	Session 2latecomer (10 minutes presentations plus 5 minutes discussion) Introduction of new PhD Students (Climate Security)
Janpeter Schilling	Interactions between humans and the climate: Security aspects
9:15 - 10:30	Session 3.1, 3.2 and 3.3 (continuation) (modification according to the development on the previous day)
10:30 - 11:00	Coffee break
11:00 - 12:30	Session 3.1, 3.2 and 3.3 (continuation) Plenary wrap up
12:30 - 14:30	Lunch and walk
14:30 - 15:30	Session 4

**Forthcoming SICSS Students Activities** 

Armine Avagyan, Bente Tiedje, Sebastian Sonntag (chairs)

Preparatory meeting for the cluster meeting in October 2010

Forthcoming activities

NN Hamburg Climate System Summer School 2011

NN Doctoral Climate System Fair 2012

15:30 - 16:00 Coffee break

16:00 - 17:00 Summary and concluding remarks

Detlef Stammer, Eva-Maria Pfeiffer, Oliver Dilly

Oliver Dilly SICSS Activity Outlook

17:00 Departure

19:15 Arrival at Geomatikum

#### Venue

Gut Gremmelin, Tel.: 038452/5110, info@gutgremmelin.de



#### **Directions**

By car

From Hamburg take Autobahn A20 and A19 and leave A19 at exit no. 13 "Güstrow-Süd/Teterow". After ~200m you turn left in the direction of Reinshagen. Follow the main road to Gremmelin. At the end of the street you turn right onto the cobbled road. You will find Gut Gremmelin on the left side.

## By train

Take the IC train no. 2184 to Bützow leaving Hamburg on track no. 8 at 07:44. In Bützow you change to train RE 5307 to Güstrow from track no. 3 at 09:34. In Güstrow take a taxi to Gut Gremmelin.

