



International Summer School on Climate of the Baltic Sea Region

Askö Laboratory, Trosa, Sweden, 20-27 August 2018

co-organized by Leibniz Institute for Baltic Sea Research
Warnemünde, University of Rostock and Helmholtz-Zentrum
Geesthacht under the umbrella of Baltic Earth
(www.baltic.earth)

Course agenda (arrival on Askö 10:30 on Monday 20 Aug, departure 10:00 on Monday 27 Aug)

Day	Monday 20/8	Tuesday 21/8	Wednesday 22/8	Thursday 23/8	Friday 24/8	Saturday 25/8	Sunday 26/8
General topic	Course introduction, student presentations	Fundamental processes in the climate system, large-scale circulation	Climate modeling, dynamical downscaling	Regional oceanography, land-sea interaction, eutrophication, carbon cycle	History of the Baltic Sea, Past climate variability of the Baltic Sea Region	Future projections, hypoxia, science communication	Examination, students' group presentation, resumé
Breakfast 08:00-08:45							
Speaker/title Morning session 09:00-10:30 (2 x 45 min)	Travel to Askö	Markus Meier: fundamental processes of the climate system II and large-scale ocean circulation	Markus Meier: Climate Modeling – The global and regional perspective, part II	Markus Meier: Physical Oceanography of the Baltic Sea and other regional seas, part I	Markus Meier: Physical Oceanography of the Baltic Sea and other regional seas, part III	Markus Meier: History of the Baltic Sea and past changes on millennial time scales	Markus Meier: Future projections for the Baltic Sea Region
Break 10:30-11:00							
11:00-12:30 (2 x 45 min)	Markus Meier: Course introduction and fundamental processes of the climate system	Anna Rutgersson: Climate state and global circulation patterns in the atmosphere, part I	Markus Meier: Statistical analysis of time series I	Markus Meier: Physical Oceanography of the Baltic Sea and other regional seas, part II	Markus Meier: Physical Oceanography of the Baltic Sea and other regional seas, part IV	Karol Kulinski: Biogeochemical Cycles in the Baltic Sea	Examination (90 minutes), in parallel ¹ : Biogeochemical cycles in the Baltic Sea II by Karol Kulinski
Lunch 12:30-15:00							
Speaker/title Afternoon session: 15:00-16:30 (2 x 45 min)	Short student presentations of their thesis work (5 min. each)	Anna Rutgersson: Climate state and global circulation patterns in the atmosphere, part II	Excursion: Visit Electra (Markus Meier)	Tutorials and exercises: Statistical analysis of time series I (Markus Meier)	Tutorials and exercises: Statistical analysis of time series II (Markus Meier)	Tutorials and exercises: Wind-driven and thermohaline circulation of the Baltic Sea (Markus Meier)	Students' group presentations, resumé of the school
Break 16:30-17:00							
17:00-18:30 (2 x 45 min)	Short student presentations of their thesis work (5 min. each)	Markus Meier: Climate Modeling – The global and regional perspective, part I	Markus Meier: Statistical analysis of time series II	Christoph Humborg: Processes in the Baltic Sea catchment area and eutrophication	Markus Meier: Past climate variability of the Baltic Sea on decadal to centennial time scales	Markus Meier: Soft skills in science	Students' group presentations, resumé of the school
Break 18:30-19:00 Dinner 19:00-20:00							
Evening session 20:00-21:30 (2 x 45 min)	Social activities (ice breaker)	Tutorials and exercises: discussion on trusting climate models and model democracy (Markus Meier)	Students' group work supervised by Markus Meier	Christoph Humborg: Terrestrial and marine carbon cycle	Students' group work supervised by Markus Meier	Marcus Reckermann: Baltic Earth – regional Earth system science and presentation technique	Social activities (BBQ)

¹ For all students that do not want to participate in the examination

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Lectures	Hours	Contents
Prof. Markus Meier	28	Physical Oceanography
Prof. Anna Rutgersson	4	Meteorology
Prof. Christoph Humborg	4	Terrestrial biogeochemistry
Dr. Karol Kulinski	4	Marine biogeochemistry
Dr. Marcus Reckermann	2	Earth system science
Total	42	

Seminar	Hours	Contents
Prof. Markus Meier	8	Students' presentations supervised by Markus Meier

Exercises and tutorials	Hours	Contents
Prof. Markus Meier	14	Exercises, tutorials and excursion with the research vessel Electra, students group work supervised by Markus Meier