Universität Rostock Traditio et Innovatio

Announcement

Third International Summer School on

"Climate of the Baltic Sea Region"

28 August – 4 September 2017

co-organized by

Leibniz Institute for Baltic Sea Research Warnemünde (IOW) and University of Rostock

under the umbrella of Baltic Earth (www.baltic.earth)

Organizer: The Baltic Earth programme, Leibniz Institute for Baltic Sea Research Warnemünde and Rostock University announce the Third International Summer School on "Climate of the Baltic Sea Region", hosted by Askö Laboratory of Stockholm University Baltic Sea Centre.

Course period: 8 days in total, 28 August – 4 September 2017
Travel from Stockholm to Askö by bus and boat on 28 August and return on 4 September

Course site: Askö Laboratory is situated 80 km south of Stockholm in the Swedish archipelago. Website: http://www.su.se/ostersjocentrum/english/askö-laboratory

Estimated number of participants: ~ 20 students from all Baltic Sea countries and several experienced lecturers/supervisors

Lecturers/supervisors (confirmed so far):

1) Prof. Daniel Conley, University of Lund, Sweden
2) Prof. Christoph Humborg, Stockholm University, Sweden
3) Prof. Markus Meier, Leibniz Institute for Baltic Sea Research Warnemünde and Rostock University, Germany and Swedish Meteorological and Hydrological Institute, Sweden
4) Prof. Piia Post, University of Tartu, Estonia
5) Dr. Marcus Reckermann, Baltic Earth Secretariat, HZG, Geesthacht, Germany

Scope: The course will focus on past and future changes in climate of the Baltic Sea region. The Baltic Sea is a semi-enclosed sea with a large freshwater supply from rivers of the adjacent catchment area in the transition zone between maritime and continental climates in northern Europe. Many long-term observational data are available and provide a good knowledge about oceanic changes during the past two

centuries and even longer periods. Proxy-data of the past 1,000 to 2,000 years bear witness of a pronounced climate variability in the region.

Students will be introduced into fundamental processes of the atmosphere, ocean, sea-ice and land surface with relevance for the climate system. We will start from basic principles and equations of motion that describe the circulation and dynamics in the atmosphere, ocean and sea-ice. The available knowledge in the literature about water and energy balances will be presented. Further basic methods of the analysis and modeling of the regional climate system will be introduced, including the statistical analysis of time series to identify changes in regional climate. We will explain atmospheric pressure patterns of the large-scale circulation like the North Atlantic circulation with influence on the Baltic Sea and the corresponding catchment area. The students will also be introduced into the functioning of the wind-driven and thermohaline circulations of the Baltic Sea. Furthermore, the course will deal with coupled atmosphere-ocean climate models, climate change, the greenhouse gas effect and other drivers of regional climate, dynamical downscaling, and the variability of circulation and regional climate. We will also study the possible impact of climate change on the marine ecosystem including biogeochemical cycles. With the help of teachers from several disciplines, a holistic Earth System approach will be presented although the main focus of the course is on the physical aspects of changing climate. In addition to lectures, tutorials, exercises and literature studies the course will give the students the opportunity to discuss the learned topics further during group exercises.

Applications: The School is open to undergraduate and graduate students in marine sciences and associated fields. Please apply via:

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Please provide your contact, a motivation letter (max. 1 page), a short CV (max 2 pages) and recommendation letter from your supervisor.

Deadline for applications: 1 May 2017.
Successful candidates will be notified by 15 May 2017.
Travel, accommodation and meals are included.

Dates:

Applications start	Now
Applications end	1 May 2017
Admission notification	15 May 2017