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Earth System Science for the Baltic Sea Region

**Helmholtz-Zentrum
Geesthacht**
Centre for Materials and Coastal Research

Announcement

1st International Winter School on “Analysis of Climate Variability” 22 – 29 March 2019

co-organized by

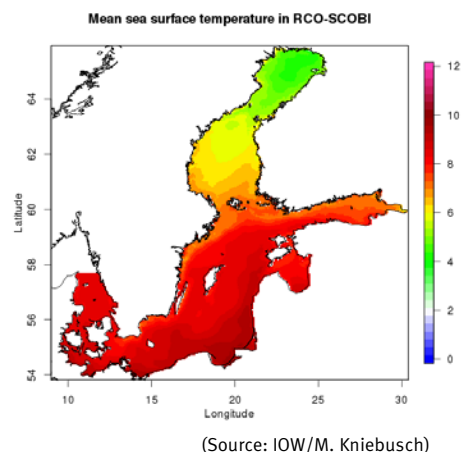
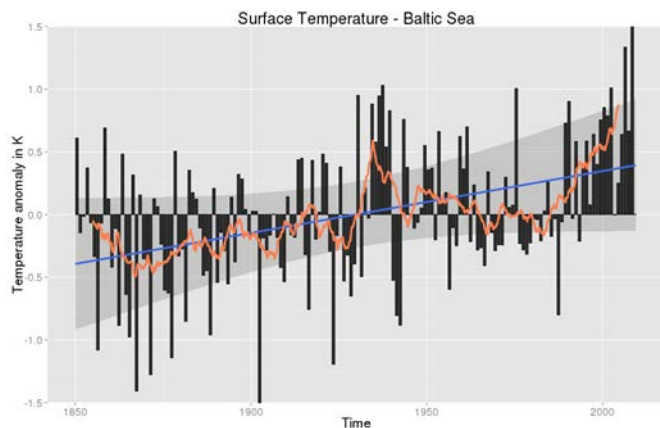
Leibniz Institute for Baltic Sea Research Warnemünde (IOW), the
University of Rostock and the International Baltic Earth Secretariat
at Helmholtz-Zentrum Geesthacht
under the umbrella of Baltic Earth (www.baltic.earth)



(photo: IOW/M. Sommer)

We invite students from the entire Baltic Sea region to the 1st Baltic Earth Winter School on “Analysis of Climate Variability”

Students will be introduced into the analysis of climate variability from years to millennia as recorded from instrumental data, historical documents and proxy data such as tree ring data or sediment cores. The focus will be on the climate of the Baltic Sea region but an overview on global climate variability and processes in the atmosphere, ocean, sea-ice and land surface relevant



for the climate system will be introduced as well. For the analysis of climate variability, both statistical methods and numerical modeling are used. Methods for the detection of systematic changes in climate and for the attribution of drivers to these changes will be presented and discussed. The course will introduce fundamentals of statistics, time series analysis, multivariate data analysis, uncertainty analysis in statistical methods and strategies of statistical analysis.



(Photo: IOW/M. Sommer)

The Baltic Sea is a relatively young marginal sea of the Atlantic Ocean that was formed after the last deglaciation. During the Last Glacial Maximum, a thick ice sheet covered the whole basin. After all ice had melted first the Baltic Ice Lake, then the Yoldia Sea and Ancylus Lake and, finally, the Littorina Sea (the Baltic Sea we know today) were formed, as a consequence of the interplay between sea level rise and land uplift that control the water exchange between the Baltic Sea and the World Ocean. The course will introduce into the

history of the Baltic Sea.

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.



(Photo: IOW/M. Sommer)

Course site: Leibniz Institute for Baltic Sea Research Warnemünde, situated in the north of Rostock at the Baltic Sea.

Course period: 7 full days in total, 22 – 29 March 2019,
Travel from Berlin or Hamburg on 22 March and return on 29 March 2019

Estimated number of participants:
~ 10 undergraduate students from all Baltic Sea countries

Responsible teacher:
Prof. Dr. Markus Meier

Costs: Accommodation and all meals are provided free of charge in the Jugendherberge Warnemünde. Travel costs will not be reimbursed but limited funds are available and



(Photo: IOW)

applications for travel support will be accepted until 15 December 2018 (please add a motivation letter to your application).

Applications: The School is open to undergraduate students in geosciences such as climate science, meteorology, oceanography and hydrology and associated fields.



(Photo: IOW)

Please use our [application tool](#) on the website:

<https://www.io-warnemuende.de/bews-2019-application.html>

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

Deadline for applications: 15 December 2018.

Successful candidates will be notified by 30 December 2018.

Contact:

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