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1/1. An interdisciplinary view on the Baltic Sea level change– from a global to a regional perspective, from multiyear to decadal scales

Conveners:
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Sea-level change is an issue of increasing scientific and societal importance, due to its potential impacts and its links to a variety of disciplines, ranging from solid earth processes and geodesy to climate. Impacts of sea-level rise can include coastal erosion and flooding, higher waves at the coast as well as salt-water intrusion and stratification with implications for ecosystems. Several factors of different origin interact to increase the risk of flooding and submergence due to the rising sea level. In recent years, the availability of space and in situ observations has considerably contributed to the understanding of the main drivers of the global mean sea-level rise and variability. But it has also revealed more detailed information about regional variability of rates of sea-level change. The session, organized within the Second Baltic Sea Experiment (BALTEX) Assessment of Climate Change for the Baltic Sea basin (BACC2 http://www.baltex-research.eu/BACC2/index.html) project, should discuss the regional variability of the Baltic Sea level and its potential impacts, including ocean modeling and combined analysis of in situ and geodetic data sets with a special focus on multiyear to decadal timescales. As the effect of increasing icesheet discharge (melting, but also flow and gravitational effects) is one of the most uncertain factors in the discussion of the global to regional long-term sea-level changes, contributions dealing with this issue are also welcome. Latest research combined with overview reports should be presented to a multidisciplinary audience to help identify unsolved problems and open interdisciplinary pathways for effective communication between different research fields and decision makers.