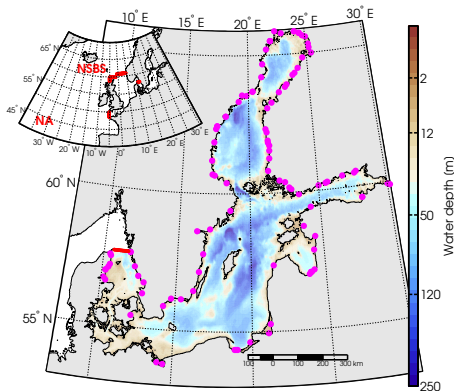


The GETM Baltic Sea setup

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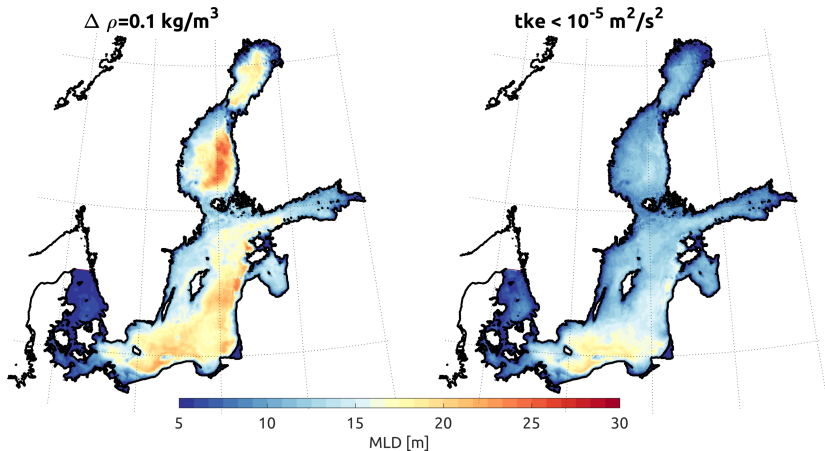
22.11.2018



Setup

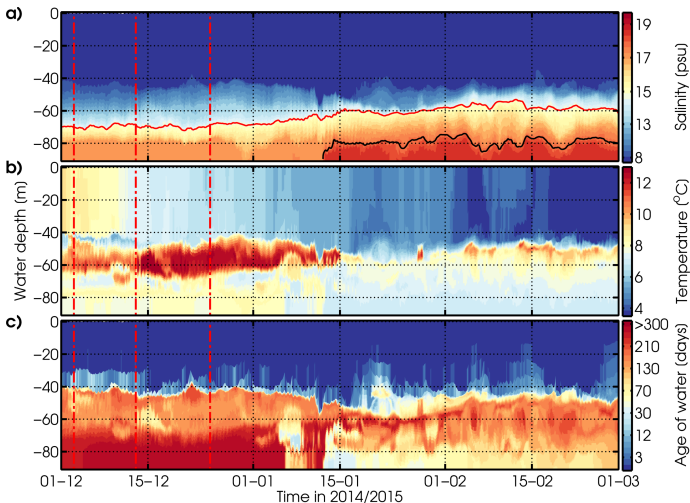
- ▶ Triple nested setup
- ▶ 1 nm horizontal resolution
- ▶ 50 adaptive vertical layers
- ▶ Minimum layer thickness 30 cm
- ▶ GETM (www.getm.eu)
- ▶ $k - \epsilon$ closure
- ▶ Smagorinsky (1963) horizontal mixing (along coordinate levels)
- ▶ fast growing sea ice (Winton 2000)

Mixed vs. Mixing layer depth

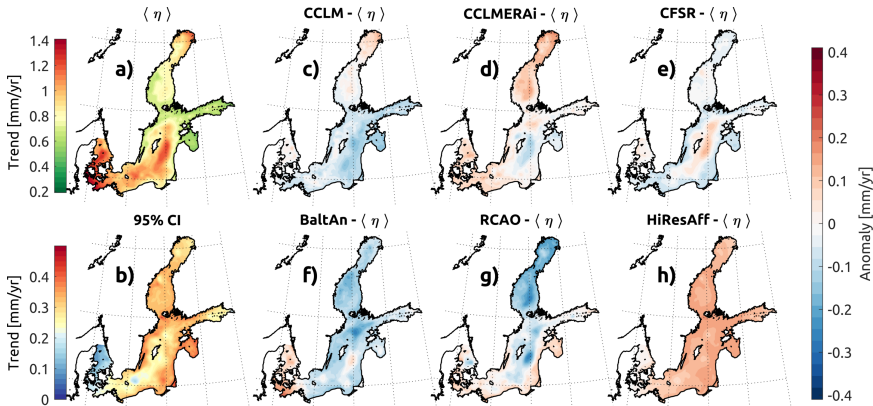


Mixed and mixing layer depth.

Mixed vs. Mixing layer depth



Time evolution of a) salinity. The thin red line marks the 15 psu isohaline and the thin black line marks the 18 psu isohaline. b) temperature, and c) age at station in the central Bornholm Basin.



a) Ensemble mean of sea level rise for the period 1980-2005, and b) 95% confidence intervals (CI). Anomaly of sea level rise (by removal of the ensemble mean) for: c) CCLM, d) CCLMERAI, e) CFSR, f) BaltAn, g) RCAO, and h) HiResAff

- ▶ Mixing and mixed layer depth
- ▶ Surface age
- ▶ Mean sea level variability and rise (monthly means of SSH)
- ▶ Surges - trends and variability (monthly maximum of SSH)