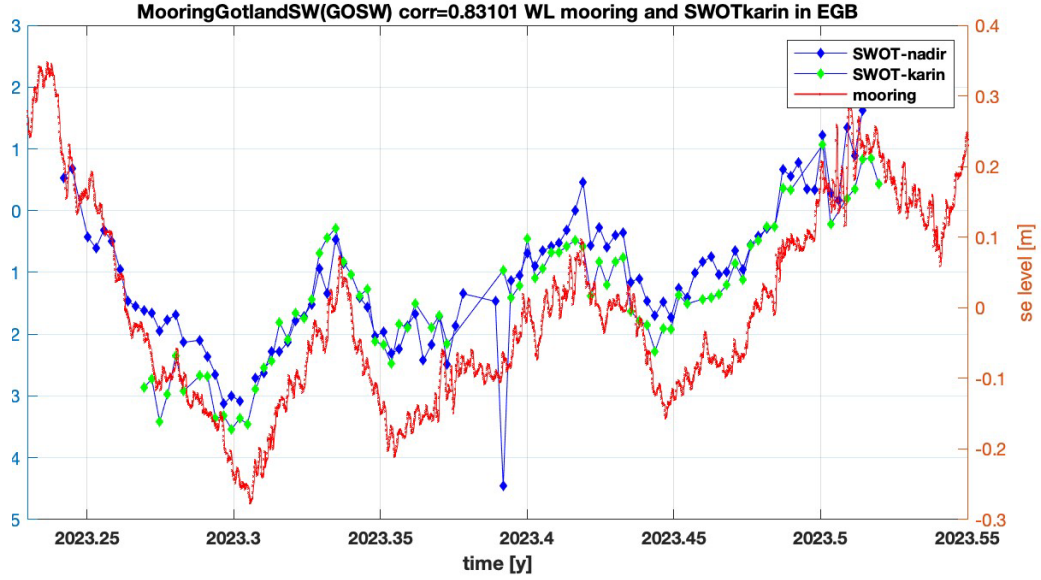
CONWEST-ADAC Campain in Central Baltic

In Project CONWEST-DYCO in Phase 1/Phase 2 CONtinuum of Water from ESTuaries to coastal DYnamics

Fenoglio L., Chen J., Mohrholz V., Faber J., Renzelmann H.
Institute of Geodesy and Geoinformation University of Bonn, Germany
Institut of Oceanography Warnemünde, Germany

1.Is SWOT meeting requirements, pre-launch expectations?

We find an accuracy of 6 cm of the sea level anomalies compared to in-situ data



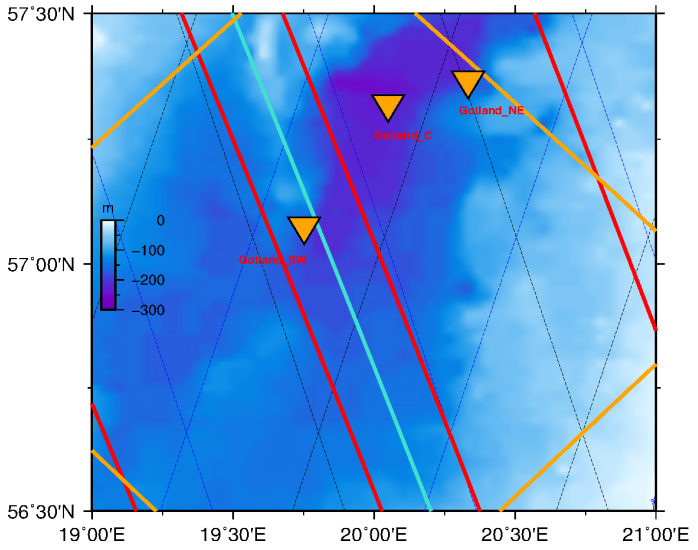
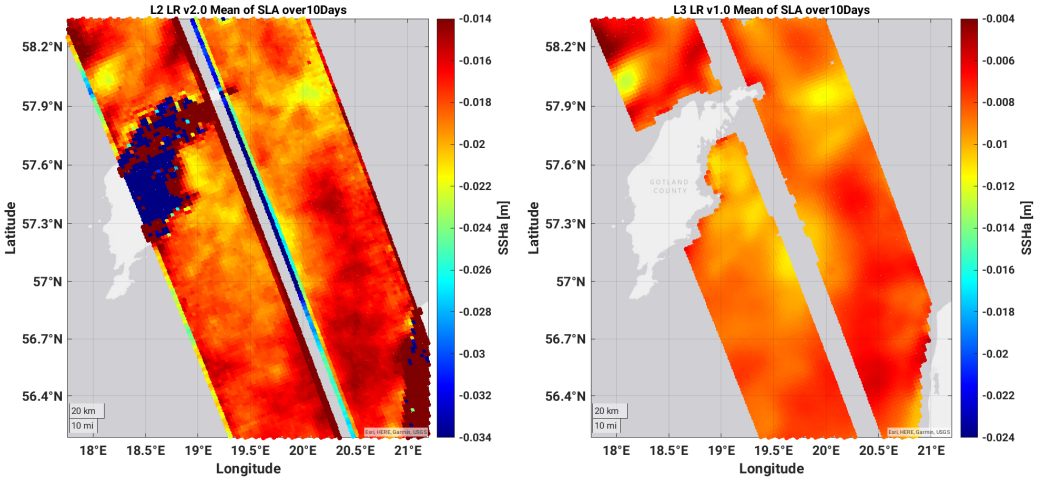


Fig. 1. STDD of 5.2 cm of SWOT L2 LR vrs mooring SW (left) and gauges (right)

2. New results being revealed



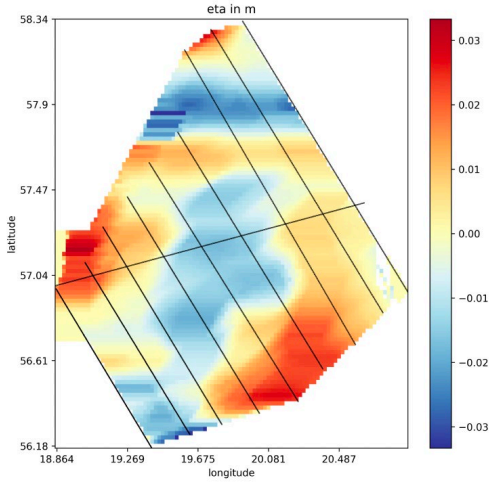
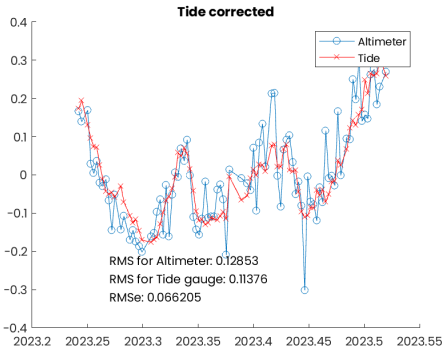
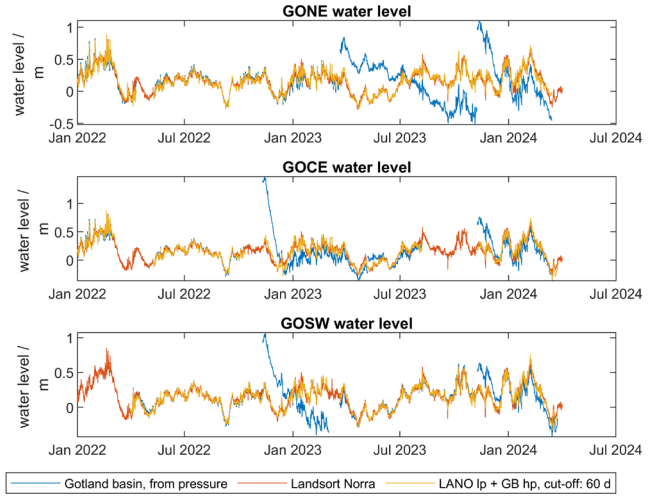


Fig. 2. Average over 10 days of the SWOT sea level anomalies from L2 and L3 LR data (top) and steric height anomalies from transects made in the IOW campaign.



3. **Challenges remaining: steps forward**

Spatial signal is small compared to Temporal variability



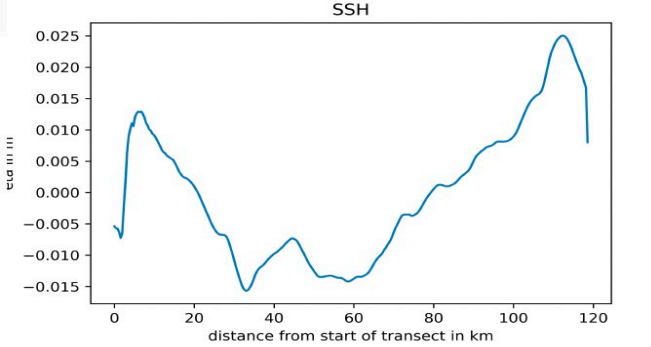


Fig. 3 Sea level anomaly variability in space along a transect from in-situ campaign

4. Details on method

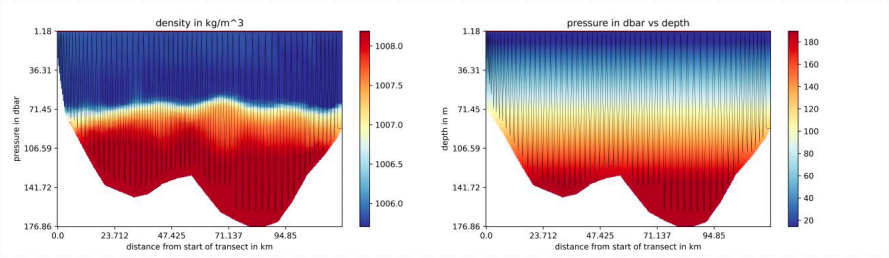


Figure 1: left figure: calculate along track $\rho(T, S, p) \rightarrow$ interpolate ρ on p-grid
right figure: calculate depth $dz = \frac{dp}{g \cdot \rho} \rightarrow$ interpolate p on z-grid

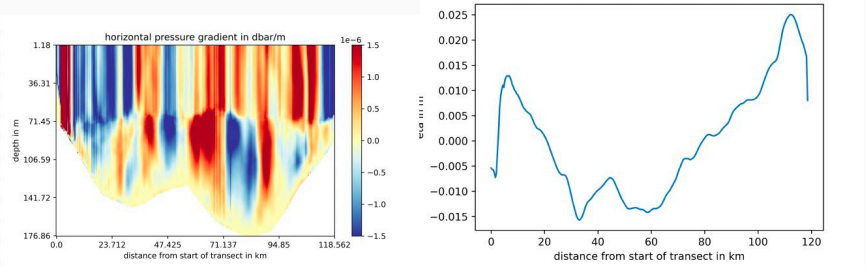


Figure 2: left figure: calculate from $p(z)$ horizontal gradient $\rightarrow$ set $\frac{dp}{dx} = 0$ for bottom
right figure: $\frac{dp}{dx} = \frac{d\eta}{dx}$ for surface pressure gradient