



SWOT Validation Against Glider Data off Canada's West Coast

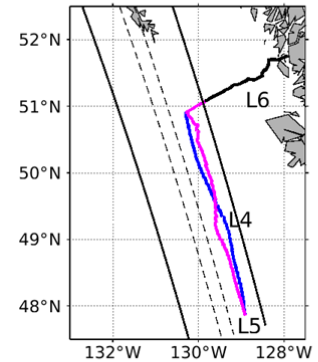
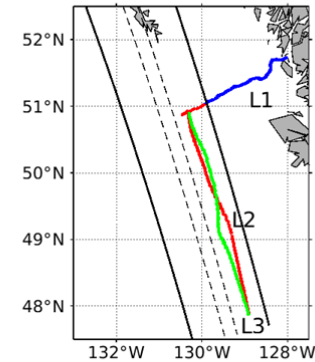
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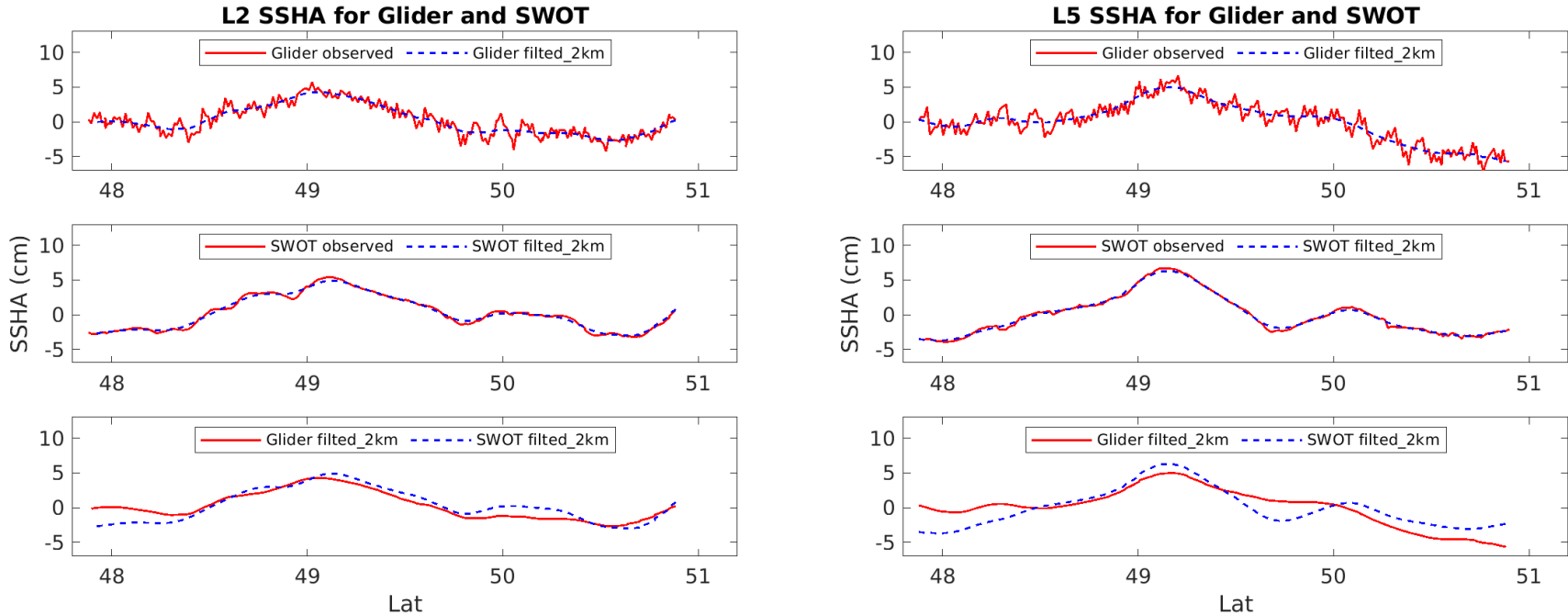
SWOT and Glider Data

- 1-d repeat, 2-km Level-3 SWOT SSHA product off Canada's west coast from April to July 2023.
- Steric heights relative to 1000 db are calculated from glider data for May-July 2023, on L2, L3, L4, and L5 tracks.
- SWOT data are interpolated onto glider sampling location and time.
- Both SWOT and glider SSHA are interpolated on to a 2-km grid.
- The mean over each track is removed.





SWOT and Glider SSHA



Shown are track L2 (smallest difference) and L5 (largest difference).

A 20-km along-track low-pass filter (about the distance of half-day glider travelling) is applied to glider data.

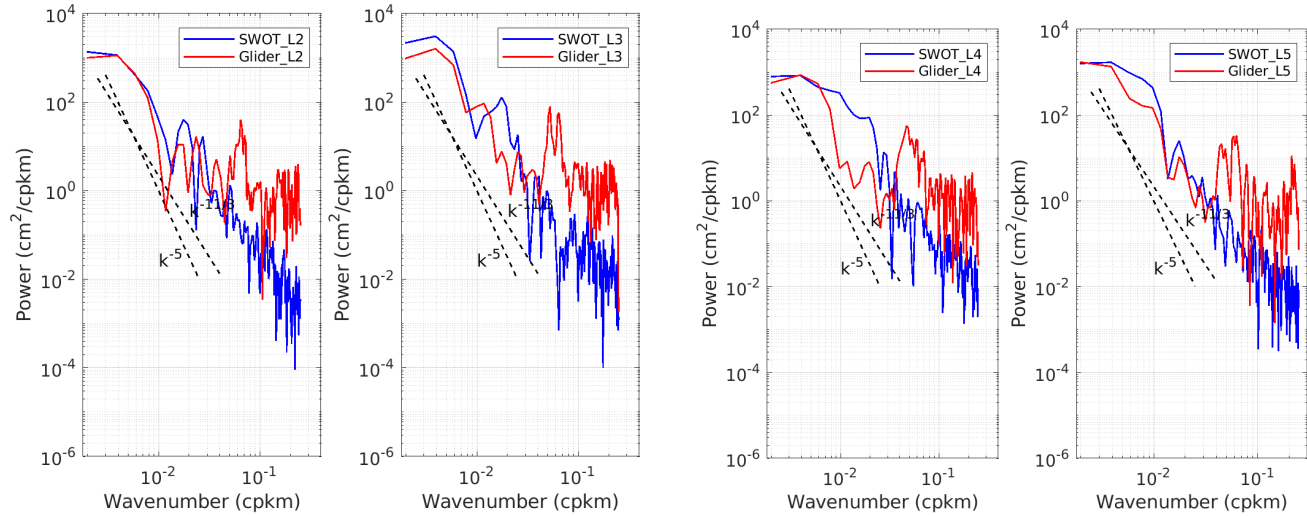
The RMS differences are 1.0 to 1.7 cm with filtering and 1.3-2.0 cm without filtering.



SWOT and Glider SSHA Spectra

Consistent at 25 km and longer

unfiltered



filtered

