**Metocean conditions during the Antarctic Circumnavigation Expedition: A comparison with model predictions**

**Introduction**
Global wave models show considerable biases in integral wave parameters in the Southern Ocean, a remote region of the world oceans that is still poorly explored.

Here, a database of metocean conditions compiled during the Antarctic Circumnavigation Expedition (ACE) from December 2016 to March 2017 is represented.

**Methods**
Assuming ship as a big buoy, directional properties of encountered sea state can be estimated based on the measured ship motion. The estimation methods depend on how ship responds to incident wave that is modelled by Response Amplitude Operators (RAOs).

WaMoS observations are calibrated against obtained spectral wave parameters from RAOs.

**Results**
Calibrated wave data are used to assess the performance of the Centre for Australian Weather and Climate Research (CAWCR) hindcast.

Discussion
Results suggest that however CAWCR hindcast generally overestimates the significant wave height, $H_s$ in locations where storm has been detected are underestimated. The hindcast’s over estimation is more significant close to the continent (Leg 2).

**More Information**
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