

## Southern Ocean region

Figure 1 present 2 maps of the mean (left) and STD (right) SSS maps from SMOS SSS L4 OI v346 - Weekly (CMEMS-CATDS-LOPS) Satellite product over the period of the TSG transect.

Figure 1: Mean (left) and STD (right) SSS map from SMOS SSS L4 OI v346 - Weekly (CMEMS-CATDS-LOPS) Satellite product over the period of the TSG transect. The black line corresponds to the TSG transect.

Figure 2 show on the top panel SSS as measured by the TSG along its track line (black line) and collocated SMOS SSS L4 OI v346 - Weekly (CMEMS-CATDS-LOPS) Satellite product (red line). The corresponding density spectra are shown on the bottom panel.

Figure 2: SSS as a function of the cumulative distance over the TSG transect (black line) and collocated SMOS SSS L4 OI v346 - Weekly (CMEMS-CATDS-LOPS) Satellite product (red line)