**Measuring atmosphere-ocean interaction**

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The exchange of momentum, heat, moisture and other constituents between the atmosphere and the ocean is key in the understanding of climate processes. The ocean surface wind or stress strongly affects these exchange processes and is observed for several decades by microwave scatterometers and radiometers. The International Ocean Vector Winds Science Team ([IOVWST](https://coaps.fsu.edu/scatterometry/meeting/past.php)) climate working group addresses inter-sensor comparisons and satellite inter-calibration to achieve a seamless wind and surface stress climate data record for the active and passive instruments at varying operating wavelengths. Mesoscale interaction, moist convection dynamics, diurnal variability, circulation patterns and oscillations can be assessed in these observation records, as well as the evolution of extreme events over time. The calibration efforts against in situ observations furthermore enhance reanalysis products and help evaluate their representation of the above-mentioned processes. Reanalyses and CMIP5 climate models show systematic differences against the observed records, particularly in the extensive tropical and subtropical regions, which will be illustrated at the meeting.

Other activities of the IOVWST are the calibration of extreme winds, the derivation of ocean forcing (stress) products and the evaluation of winds in coastal seas and near marginal ice zones, which will be briefly addressed.