# Abstract Details

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**Title:** Test of Bulk Aerodynamic Algorithm for the Air-sea Momentum Flux

**Abstract:** Abstract The data, originated from the HEXMAX experiment and the RASEX Experiment. HEXMAX experiment was carried out at the Dutch research platform MPN in October-November 1986, it is representative of open ocean conditions. RASEX experiment took place at an offshore wind turbine site in the Baltic Sea in 1994, it is representative of the fetch-limited conditions; Both datasets are used to test sea surface fluxes by using bulk algorithm. In the HEXMAX experiment, COARE algorithm somewhat underestimate u*, z0, CDN and τ with wind speed greater than 15 ms-1. In the RASEX experiment, COARE algorithm generated u* and τ in good agreement with those from measurements. We used the connection between u*/g and Hs/cp, which avoid self-correlation and has a clear separation between oceanographic and atmospheric quantities. In the HEXMAX experiment, a good linear regression line is: u*/g=0.35Hs/Cp-0.03 . In the RASEX experiment, a regression equation is: u*/g=0.51Hs/Cp-0.017 . Using those relations and dispersion equations, we can derive a connection between wave age and wave steepness.

**Presentation Mode:**

**Keywords:** COARE, sea surface aerodynamic roughness length, friction velocity, wind stress.

**Status:** Reviewed.

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