



Measurements of the radiation fluxes in the Atlantic Ocean

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We present the results of the first phase of the Meridional Oceanic Radiation Experiment (MORE), which is a co-operative action of the Shirshov Institute of Oceanology (Moscow) and Institut fuer Meereskunde (Kiel). During this experiment instrumental measurements of the short-wave and long-wave radiation were performed along the meridional ship route from the North Atlantic subpolar latitudes to the South Atlantic subpolar latitudes. Simultaneous measurements of the radiation flux components were performed using Kipp&Zonen CNR-1 Net-radiometer. Simultaneously, the routine observations of the cloud cover as well as the photography of the sky sphere were performed using cloud camera. In the background, the gradient measurements of the temperature and humidity in the surface layer were performed using high resolution observational mast. All data sets collected were classified according to different solar altitude and cloud cover conditions in order to test the existing and to derive new parameterizations of the radiation fluxes at sea surface.