



Wind waves climate projected in CMIP5 experiments

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Future climate projected under rising CO₂ concentrations is characterized by higher air and ocean temperatures. This will be accompanied by changes in the atmospheric and ocean circulation and by shifts in the global wind patterns. Having the wind as a major forcing factor for the surface waves and considering the changes in the atmospheric circulation we are to expect changes in waves in line with the changes of wind distribution over the globe. Here we use a global ocean waves model (WAM) forced by the winds from an Earth System model (EC-Earth) calculated within the CMIP5 experiments. Our wave model simulations cover the historical part of CMIP5 experiments and run into the future as projected in an “extreme” (RCP 8.5) and a “moderate” (RCP 4.5) scenario of climate change. We will present an analysis of trends in wind speed and wave height and long-term variations in the global wave patterns.