



Dynamic coupling of an ENSO model to the global coupled climate model CLIMBER-3 α

H. Gölzer, A. Levermann, S. Rahmstorf

Potsdam Institute for Climate Impact Research (Heiko.Goelzer@pik-potsdam.de)

To study the interaction between changes in the thermohaline circulation and changes in the El Niño/Southern Oscillation (ENSO), the Zebiak-Cane ENSO model is coupled to the Earth System Model of Intermediate Complexity (EMIC) CLIMBER-3 α , which includes an oceanic general circulation model. The background state for the ENSO model is given by time-averaged wind and temperature fields of the tropical Pacific in the EMIC which may evolve in the course of specific experiments. The influence of the ENSO model onto global climate is implemented by supplying parameterized heat and freshwater flux anomalies to the EMIC. We investigate the interaction between the two models for pre-industrial climate forcing as a basis for future studies.