

New climate models: Towards a coupled climate model with a finite-element sea ice-ocean representation

Thomas Jung[†]; Jens Schroeter; Sergey Danilov; Kerstin Fieg; Wolfgang Hiller; Dmitry Sidorenko; Sven Harig
[†]AWI, Germany

Leading author: Thomas.Jung@awi.de

A Finite-Element Sea-ice Ocean circulation Model (FESOM) has been developed at AWI, which allows a regional focus through the use of unstructured grids while avoiding nesting and open boundaries. Here, recent efforts in coupling FESOM to the global atmospheric model ECHAM5 in the framework of OASIS4 will be described. Apart from technical details associated with the coupling first results of the impact of regional refined resolution on the climate of the coupled model will be discussed.