

Computing project proposal for HLRE-4 of the German Climate Computing Centre (DKRZ)

Project title:

Storyline simulations of extreme events with spectral nudging

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Abstract

We apply for a computing project to explore the storyline approach at an unprecedented level of detail. Using three configurations of two coupled climate models with spectral nudging in the atmosphere, we will investigate a broad range of extreme event types, how their reproduction depends on nudging parameters, whether long-term drift occurs in multi-decadal nudged runs, and how these aspects depend on the model and resolution. The planned simulations form the backbone of a cross-institutional Helmholtz project. The final production runs will be used by project partners to drive regional and impact models.