

Title: Idealised Modelling of the Southern Ocean
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Abstract: We will present a simple, idealized framework for modeling of the Southern Ocean suited to process studies and as a test bed for studying the effects of changes in physics or dynamics modules. This framework, inspired by Abernathy et al. (2012) treats the Southern Ocean as zonally periodic channel, with modified boundary conditions on the northern boundary that relax the temperature field to a pre-defined profile, which permits the formation of a realistic overturning circulation. On top of this basic state, numerous extensions have been implemented.

The results of a number of recent studies using this configuration will be presented. In particular, we will show the preliminary results of study using this configuration to study the influence of large topographic features on the meridional overturning.