

Workshop on Southern Ocean Modelling.
CSIRO Marine Research Laboratory, Hobart, Tasmania, Australia
9-10 November 2005
(invitation only)

This workshop will be attended by Australian scientists, WGOMD members, and invited speakers. A key goal of the workshop is to review elements essential for modelling the Southern Ocean in climate scale simulations, with focus on how present state-of-the-art models perform, and what should be goals for the next model generation (e.g., next 5 years).

Key questions that the workshop will focus on are:

- A. Why is the Southern Ocean so important for Earth System Dynamics?
- B. Essential processes (physics, biology, chemistry, other) critical in the Southern Ocean, in particular to identify specific outstanding questions, thus providing recommendations for future areas of research and development.
- C. How well are Southern Ocean processes represented in the present state-of-the-art (e.g., IPCC AR4 participants) climate models; what are the shortcomings as well as areas that are done reasonably.
- D. What should a global climate model include within the next 5 years to improve on the present state-of-the-art in Southern Ocean processes? What should be represented explicitly and what needs to be parameterized? Are suitable parameterization methods available?
- E. What are the complementary roles of models and observations in the Southern Ocean. How can modellers do more to help observationalists, and vice versa? What are the key metrics based on observations that should be used to evaluate model integrity.
- E. What is the role of the Southern Ocean in climate change, and what are the prospects for measuring and/or modelling such changes.