

## COSIMA Workshop Program

25-26 May 2017  
Seminar Room,  
Climate Change Research Centre,  
Level 4 Matthews Building,  
UNSW, Sydney

Welcome to the second meeting of the Consortium for Ocean Sea Ice Modelling in Australia (COSIMA). COSIMA is a collaboration between University-based researchers and publicly funded research agencies (i.e. BoM, AAD, CSIRO) to jointly develop ocean and sea ice model configurations. These model configurations will form the basis for high-resolution forecasting, reanalysis, process modelling and ultimately coupled climate modelling in Australia. The consortium has 3 years remaining of 4 years funding from an ARC Linkage Project to build a model configuration which underpins a variety of applications. The workshop aims to engage and benefit all ocean-sea ice scientists and technicians in Australia.

The goals of this workshop are to:

- communicate the scientific and technical milestones achieved during the past 12 months;
- prioritize the future scientific and technical challenges that need to be addressed within the consortium;
- strategize how to best use our scientific and technical resources over the next 12 months;
- create a consensus of action items that will be undertaken for the benefit of COSIMA over the next 12 months; and
- provide a platform for technical and scientific collaboration to effectively harness available resources and to plan for future funding possibilities.

Catering (morning tea, afternoon tea and lunches) will be provided. Please communicate any special dietary requests via the comments section of this doodle poll before May 10:  
<https://doodle.com/poll/2d3gfzuvfhe36cbr>.

Please join us for a group dinner (at your own cost) on the Thursday evening (location TBD). Please indicate your attendance at dinner via this doodle poll:  
<https://doodle.com/poll/mnvwc6sty6pb3v6n>.

When preparing your talk, the time slots are 15 minutes and please aim for 10 minutes of speaking – you should expect to be interrupted during your talk, and field questions afterwards. In addition, we have allocated time at the end of each session for discussion. The speakers and chair from the session will lead the discussion.

### Thursday 25 May 2017

*Seminar Room, Climate Change Research Centre, UNSW, Sydney*

Time	Speaker	Topic
10:00- 10:30	Morning Tea	
<b>Session 1: Agency Reports. Chair Adele Morrison</b>		
10:30 (20 mins)	Andy Hogg (ANU)	Intro and COSIMA Year 1 Review
10:50	Gary Brassington (BoM)	Ocean forecasting – status and outlook (NO ABSTRACT)

11:05	Richard Matear (CSIRO)	CSIRO Decadal Climate Prediction Project
11:20	Dave Bi (CSIRO)	What's up with ACCESS? (NO ABSTRACT)
11:35	Peter Oke (CSIRO)	Ocean data assimilation – issues and opportunities (NO ABSTRACT)
11:50	Aidan Heerdegen	Technical Working Group (TWG) Update
12:05	Panel Discussion	
12:30-1:30	Lunch (provided)	
<b>Session 2: Focus on Forecasting and Decadal Prediction. Chair Catia Domingues</b>		
1:30	Jan Zika (UNSW)	Understanding Ocean Heat Uptake
1:45	Xiaobing Zhou (BoM)	Short term oceanic forecasts with ACCESS-S1
2:00	Terry O'Kane (via Richard Matear)	Decadal Prediction (NO ABSTRACT)
2:15	Matthew Chamberlain (CSIRO)	ACCESS-ocean - AM2 configuration for climate forecasting.
2:30	Leela Frankcombe (UNSW)	Testing methods of separating internal variability from the forced signal.
2:45	Panel Discussion	
3:10-3:40	Afternoon Tea (provided)	
<b>Session 3: Focus on Ice. Chair Veronique Lago</b>		
3:40	Matthew England (UNSW)	Understanding recent trends in Antarctic sea ice. (NO ABSTRACT)
3:55	Petra Heil (UTas)	A COSIMA sea-ice model: the choice is yours
4:10	Alberto Alberello (U. Adelaide)	Measuring waves, currents and sea ice during the Antarctic circumnavigation
4:25	Kaitlin Naughten (UNSW)	Simulation of ocean/sea-ice/ice-shelf interactions with MetROMS and FESOM
4:40	David Webb (UNSW)	Sustained changes in sea surface height cause subsurface warming along Western Antarctic Peninsula
4:55-5:15	Panel Discussion	
7:00	Group Dinner	

## Friday 26 May 2017

*Seminar Room, Climate Change Research Centre, UNSW, Sydney*

Time	Speaker	Topic
<b>Session 1: Focus on Biogeochemistry. Chair Ryan Holmes</b>		
09:00	Matthew Chamberlain (CSIRO)	Global 0.25 degree WOMBAT/ocean biogeochemistry experiments
09:15	Clothilde Langlais (CSIRO)	Hotspot of carbon fluxes along the Polar Front
09:30	Laurie Menviel (UNSW)	Wind shifts and the biogeochemistry of climate change.
09:45	Joan Llorc (UTas)	Eddies, primary production and nutrient subduction in the Southern Ocean (NO ABSTRACT)
10:00	Panel Discussion	
10:20-10:45	Morning Tea (provided)	
<b>Session 2: Focus on Model Developments. Chair Kaitlin Naughten</b>		
10:45	Russell Fiedler (CSIRO)	Model Bathymetry Challenges and Progress
11:00	Nic Hannah	MOM01-CICE5-OASIS MCT developments

(Breakaway)		
11:20	Marshall Ward (NCI)	Pursuing Peak Performance in Pelagic Predictions
11:35	Adele Morrison (ANU)	CORE vs JRA-55, JRA-RYF (help from Kial) (NO ABSTRACT)
11:50	Fabio Dias (CSIRO)	Ocean heat uptake and redistribution in ocean-sea ice model forced by CORE-II and JRA-55 atmospheric reanalyses.
12:05	Angus Gibson	Adaptive vertical coordinates in MOM6
12:20	Panel Discussion	
12:40-1:30	Lunch (provided)	
<b>Session 3: Round Table Planning Discussion. Chair Paul Spence</b>		
1:30-3:30	Planning the Year Ahead	
3:30	Close	