

## COSIMA 2022 workshop program

updated 28 October; get the latest version from <http://cosima.org.au/index.php/meetings/cosima2022/>

The workshop program features 21 talks, including keynotes from Elizabeth Hunke (NCAR) and Alistair Adcroft (GFDL), plus posters, lightning talks and discussion sessions. Poster presenters will be available for questions in the poster session following their lightning talk.

### DAY 0 - Wednesday 2nd November

17:00 Pre-workshop drinks and dinner at Whalers Pub, Salamanca

### DAY 1 - Thursday 3rd November

8:00 - 9:00 Coffee & sign-in **⚠ Please complete the sign-in form emailed by CSIRO beforehand, and arrive as early as possible** - building sign-in will be slow and painful.

#### 9:00 - 10:40 Session 1 (chair: Taimoor Sohail)

9:00 - 9:05 Paul Spence / Chris Chapman (UTas) Welcome, housekeeping, acknowledgment of country

9:05 - 9:25 Andrew Kiss (ANU) COSIMA update

9:25 - 9:40 Yuxin Wang (UTas) Understanding the predictability of marine heatwaves off Western Australia

9:40 - 9:55 Clothilde Langlais (CSIRO O&A) Revisiting the eReefs hydrodynamic and tidal model – lessons learnt from recent re-development of the nesting strategy from global to coastal

9:55 - 10:10 Xihan Zhang (UTAS) Maintenance of the zonal momentum balance of the Antarctic Circumpolar Current by barotropic dynamics

10:10 - 10:25 Chris Chapman (CSIRO) High resolution regional modelling of the EAC in MOM6

10:25 - 10:40 *Lightning Talks (9 talks)* *Alessandro Toffoli, Claire Yung, Jan Jaap Meijer, Jan Zika, Jingwei Zhang, Paul Spence, Pete Strutton, Sandeep Mohapatra, Stewart Allen*

#### 10:40 - 11:25 Tea (9 posters)

#### 11:25 - 12:40 Session 2 (chair: Tamara Schlosser)

11:25 - 11:40 Matt Chamberlain (CSIRO) WOMBAT developments in ACCESS and BRAN

11:40 - 11:55 Tyler Rohr (UTAS) Is marine carbon cycling and sequestration biased by zooplankton grazing in BGC models?

11:55 - 12:10 Pat Wongpan (UTAS) Primary production by algae in Antarctic sea-ice: spatio-temporal comparison between a sea-ice biogeochemical model and a satellite-based light penetration index

12:10 - 12:25 Chinglen Tensubam (UniMelb) Influence of surface wave mixing on oceanic biogeochemistry

12:25 - 12:40 Hannah Dawson (UNSW) Vulnerability of Antarctica's coastline to colonisation by kelp and other passive drifting objects

#### 12:40 - 13:40 Group photo followed by lunch

#### 13:40 - 14:45 Session 3 and Discussion (chair: Adele Morrison)

13:40 - 13:55 *Lightning Talks (10 talks)* *Ashley Barnes, Edward Doddridge, Felipe Vilela da Silva, Jodie Schlaefer, Jules Kajtar, Polina Sholeninova, Tamara Schlosser, Yuhang Liu, Ben Galton-Fenzi (online), Laurie Menviel (online)*

13:55 - 14:25 Discussion breakouts 1. Priorities for large CPU experiments (Chair: Andrew Kiss); 2. WOMBAT vision (Chair: Matthew Chamberlain); 3. COSIMA recipes / on-ramping for new people (Chair: Julia Neme); 4. Regional modelling (Chair: Chris Chapman).

14:25 - 14:45 Report back 5 minute reporting back plus discussion per group

#### 14:45 - 15:30 Tea (8 posters)

- 15:30 - 15:50 Walk to Lady Nelson, Elizabeth St Pier **Be there by 3:50pm. Alternative: Landlubbers Bocce Tournament in Salamanca.**
- 15:50 - 18:00 **Lady Nelson tall ship cruise** **Departs 4pm. BYOB. Dress appropriately. Alternative: Landlubbers Bocce Tournament in Salamanca.**
- 18:00 - 19:00 **Drinks** **Whalers Pub Salamanca**
- 19:00 - 22:00 **Workshop dinner** **BYOW. Annapurna Restaurant in Salamanca.**

## DAY 2 - Friday 4th November

- 8:00 - 9:00 Coffee & sign-in **⚠️ Please complete the sign-in form emailed by CSIRO beforehand, and arrive as early as possible - building sign-in will be slow and painful.**

### 9:00 - 10:30 Session 4 (chair: Will Hobbs)

- 9:00 - 9:30 Elizabeth Hunke (NCAR) Keynote: CICE Consortium update
- 9:30 - 9:45 Noah Day (Adelaide) Using CICE6 to determine the drivers of sea ice formation and consolidation in the Antarctic winter marginal ice zone
- 9:45 - 10:00 Stephy Libera (UTAS) Ocean sea ice processes and their role in multi month predictability of Antarctic sea ice
- 10:00 - 10:15 Phil Reid (BoM) Sea ice disrupter events
- 10:15 - 10:30 *Lightning Talks (10 talks)* *Mathieu Mongin, Maurice Huguenin, Natalia Ribeiro Santos, Petra Heil, Pramod Kumar Jangir, Ryan Holmes, Stuart Corney, Wilma Huneke, Xinlong Liu, Xuebin Zhang*

### 10:30 - 11:15 Tea (10 posters)

### 11:15 - 12:30 Session 5 (chair: Annie Foppert)

- 11:15 - 11:45 Alistair Adcroft (GFDL) Keynote: MOM6 activities via GFDL
- 11:45 - 12:00 Pedro Colombo (UNSW) Designing and testing a basal melt parameterization in MOM5
- 12:00 - 12:15 Ippolita Tersigni (UniMelb) Marginal ice zone heat fluxes from high-resolution thermal imaging of Antarctic sea ice surface temperature
- 12:15 - 12:30 Ellie Ong (UNSW) Episodic Intrusions of Circumpolar Deep Water through Canyons - an Idealised Study of the Antarctic Slope Front using MOM6

### 12:30 - 13:30 Lunch

### 13:30 - 14:55 Session 6 (chair: Navid Constantinou)

- 13:30 - 13:45 Christina Schmidt (UNSW) Wind- and sea-ice-driven interannual variability of Antarctic Dense Shelf Water formation
- 13:45 - 14:00 Kathy Gunn (CSIRO) Freshening slows abyssal circulation and ventilation
- 14:00 - 14:15 Andy Hogg (ANU) ACCESS-NRI and relationship to COSIMA
- 14:15 - 14:40 Discussion (Chair: Ryan Holmes) COSIMA and ACCESS-NRI
- 14:40 - 14:55 *Lightning Talks (10 talks)* *Adele Morrison, Ariaan Purich, Chengyuan Pang, Dhruv Bhagtani, Julia Neme, Océane Richet, Taimoor Sohail, Will Hobbs, Yinghuan Xie, Zhaohui Wang*

### 14:55 - 15:40 Tea (10 posters)

### 15:40 - 16:00 Close and award presentation