

HIGH RESOLUTION MODELLING

The 2nd CAWCR Modelling Workshop, 25 - 28 November 2008, Melbourne

Tuesday 25 November

WELCOME

9:00-9:10	Dr Sue Barrell, acting Deputy Director (Research & Systems)
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9:10-9:20	Dr Bruce Mapstone, Director, CAWCR
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OCEAN/COASTAL (I)

9.20

Session 1 CHAIR: Kathy McInnes

9:30-10:10	Keynote: Kevin Horsburgh, <i>Proudman Oceanographic Lab</i>	"Current developments in operational storm surge modelling"
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10:15-10:35	Siobhan O'Farrell, <i>CAWCR</i>	"Regional sea level rise around the Australian coastline"
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10:40

COFFEE

11:05-11:25	Benjamin Modra, <i>Manly Hydraulics Laboratory</i>	"NSW Storm Surge - a tidal epoch review"
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11:30-11:50	James Chittleborough, <i>National Tidal Centre, BoM</i>	"Tide models used at the National Tidal Centre"
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11:55-12:15	John Middleton, <i>SARDI Aquatic Sciences, South Australia</i>	"Regional models for upwelling and self-circulation: the importance of backward boundary conditions, CTWs"
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12:20-12:40	Joanne O'Callaghan, <i>NIWA, NZ</i>	"Adaptive non-hydrostatic multi-scale modelling: application to coastal scale processes"
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12:40-14:00

LUNCH

REGIONAL CLIMATE MODELLING

14:00

Session 2 CHAIR: Tony Hirst

14:05-14:45	Keynote: Marcus Thatcher, <i>CAWCR</i>	"Issues in regional climate modelling and future directions"
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14:50-15:10	Frank Drost, <i>Melbourne Uni</i>	"On the effect of domain size of New Zealand's regional climate model on modelled climatology"
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15:15-15:35	Sam Dean, <i>NIWA, NZ</i>	"Regional climate modelling in New Zealand using the Unified Model"
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15:40

COFFEE

16:10-16:30	John McGregor, <i>CAWCR</i>	"A variety of tropical climate simulations using CCAM"
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16:35-16:55	Debbie Abbs, <i>CAWCR</i>	"Climate change and its impact on extreme rainfall in SE Australia"
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17:00-17:20	Kim Nguyen, <i>CAWCR</i>	"Simulation of rainfall & pan evaporation over Australia"
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17:30

ICE BREAKER

Wednesday 26 November

OCEAN/COASTAL (II)

9:00

Session 3 CHAIR: James Chittleborough

9:05-9:25	Andreas Schiller, <i>CSIRO</i>	"Explicit tidal forcing in an OGCM"
9:30-9:50	Carlos Teixeira, <i>SARDI Aquatic Sciences, South Australia & UNSW</i>	"The effects of tides and wind forcing on the circulation within the Spencer Gulf"
9:55-10:15	Matthew Collopy, <i>South Aust Regional Office, BoM</i>	"High resolution modelling of swell propagation in the near shore environment"

10:20

COFFEE

NUMERICAL WEATHER PREDICTION (I)

11.00

Session 4 CHAIR: Peter Steinle

11:05-11:45	Keynote: Sue Ballard, <i>UKMO</i>	"Development of Met Office 1.5km forecast and nowcasting system"
11:50-12:10	Chris Tingwell, <i>CAWCR</i>	"Australian mesoscale data assimilation and numerical weather prediction in ACCESS"
12:15-12:35	Mohar Chattopadhyay, <i>CAWCR</i>	"Impact of using 4D-Var Assimilation of SSMI data in ACCESS modelling framework"

12:40-14:00

LUNCH

14:00-14:20	Holly Sims, <i>CAWCR</i>	"Impact of remotely sensed wind data assimilation within a 4D-VAR NWP System."
14:25-14:45	Beth Ebert, <i>CAWCR</i>	"Assessing the quality of high resolution forecasts using fuzzy (neighbourhood) verification"
14:50-15:10	Daisuke Miura, <i>JMA</i>	"Development of an operational mesoscale numerical prediction model at JMA"

15:10

COFFEE

15:45-16:05	Vaughan Barras, <i>CAWCR</i>	"Modelling the atmospheric boundary layer in ACCESS : an alternate surface scaling"
16:10-16:30	Hongyan Zhu, <i>CAWCR</i>	"Diagnosing MJO and convection behaviour in SP-CAM and CAM simulation"

19:00

WORKSHOP DINNER

"The Cells", Royal Melbourne Hotel, 629 Bourke Street, Melbourne
<http://www.rmh.com.au/content/tour.htm>

Thursday 27 November

COUPLED MODELLING

9:00

Session 5 CHAIR: Gary Brassington

9:05-9:45	Keynote: Isaac Ginis, <i>Uni of Rhode Island</i>	"New strategies for comprehensive coupled atmosphere-wave-ocean modelling in tropical cyclones"
9:50-10:10	Paul Sandery, <i>CAWCR</i>	"Evaluation of a regional ocean-atmosphere coupled weather prediction system"
10:15-10:35	Kevin Walsh, <i>Uni of Melbourne</i>	"Effects of air/sea interaction representations on ocean behaviour during tropical cyclones"

10:40

COFFEE

11:10-11:30	Gary Brassington, <i>CAWCR</i>	"East Coast Lows : oceanic boundary conditions"
11:35-11:55	Alexander Babanin, <i>Swinburne Uni of Technology</i>	"Wave-induced upper-ocean mixing and climate modelling"
12:00-12:20	Eric Schulz, <i>CAWCR</i>	"Atmosphere-wave coupling under high wind conditions"
12:25-12:45	Liu Chunxia, <i>CMA</i>	"The effect of sea wave on typhoon <i>Imodu</i> "

12:50-14:00

LUNCH

NUMERICAL WEATHER PREDICTION (II)

14:00

Session 6 CHAIR: Jeff Kepert

14:05-14:25	Roger Smith, <i>Meteorological Institute, LMU, Germany</i>	"Axisymmetric dynamics of tropical-cyclone intensification"
14:30-14:50	Noel Davidson, <i>CAWCR</i>	"Experiments with initialization and prediction of tropical cyclone structure and intensity"
14:55-15:15	Todd Lane, <i>University of Melbourne</i>	"The performance of nested cloud-scale simulations during TWP-ICE"

15:20

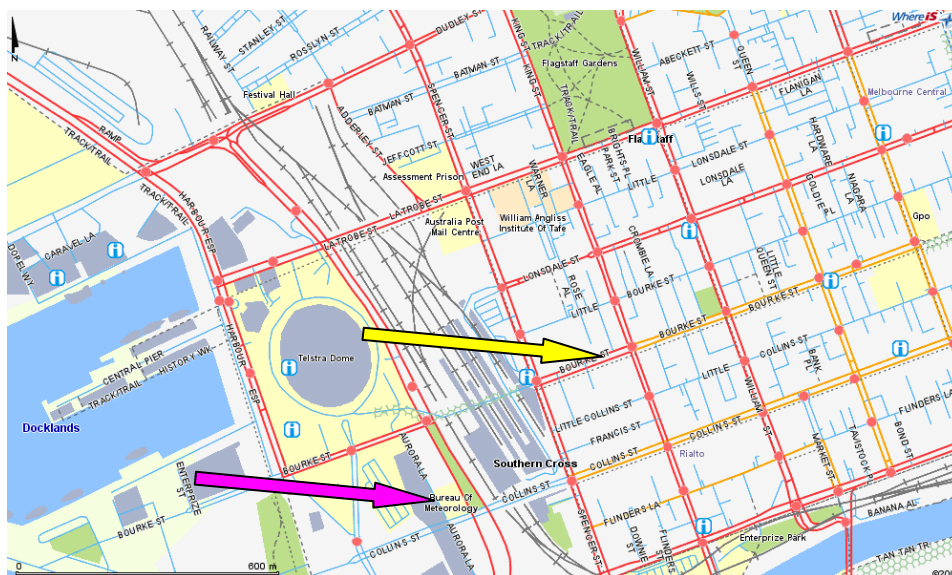
COFFEE

15:50-16:10	Michael Reeder, <i>Monash University</i>	"Modeling pyrocumulonimbi and tornadoes spawned by bushfires"
16:15-16:35	Kevin Cheung, <i>Macquarie University</i>	"Self-similarity in moisture processes and NWP models"

Friday 28 November

EXPECTATIONS

9:00	Session 7 CHAIR: John McBride	
9:10-9:30	Jack Katzfey, <i>CAWCR</i>	"Ensemble one kilometre resolution numerical weather forecasts for the America's Cup"
9:35-9:55	Craig Arthur, <i>Geoscience Australia</i>	"High resolution modelling for impact forecasting"
10:00-10:20	Jeff Kepert, <i>CAWCR</i>	"Verification of high resolution NWP for wind energy prediction"
10:30	COFFEE	
11:00-11:20	Bob Cechet, <i>Geoscience Australia</i>	"Assessing wind hazard in Australia's Region A using a high-resolution GCM approach"
11:25-11:45	Rod Potts, <i>CAWCR</i>	"High resolution modelling for the aviation weather service"
11:50-12:10	John Nairn, <i>South Australian Regional Office, BoM</i>	"Modelling priorities in South Australia"
12:15-13:30	LUNCH	
Session 8 CHAIR: Gary Dietachmayer		
13:30-15:00	Plenary and Synthesis Discussion	
15:00	CLOSE – Bruce Mapstone, Director, CAWCR	



Location of **CAWCR Modelling Workshop**, 700 Collins Street, Melbourne, and the Workshop dinner venue, **"The Cells"**, Royal Melbourne Hotel, 629 Bourke Street.