

## PAN-WCRP MODELLING MEETING OUTLINE

MET OFFICE, EXETER, OCT 9<sup>TH</sup>-13<sup>TH</sup>, 2017

MONDAY OCTOBER 9<sup>TH</sup> 2017

Timings		Presenter
<b>Plenary session I</b> (Conference Room 1+2 theatre-style): WGCM, WGNE, WGSIP, OMDP, CORDEX, S2S, DCPD <b>Chairs: WMAC Co-Chairs</b>		
0830-0900	Registration and Coffee	
0900-0905	Logistics	Keith Williams
	Welcome to the Met Office	Simon Vosper (Met Office Director of Science)
0905-0915	WCRP sponsor's review	Dame Julia Slingo
0915-0925	Introduction from WCRP/JSC	Guy Brasseur, Michel Rixen
0925-0935	Commission for Atmospheric Sciences	Keith Williams
0935-0955	Objectives of the meeting, modelling in WCRP	WMAC co-chairs
0955-1055	Summary of Working Group activities (20 mins each)	WGNE co-chairs WGCM co-chairs WGSIP co-chairs
1055-1125	Coffee/Tea	
1125-1215	Short summary of other activities (10 min each) Specific question to be addressed: "What does your group want to get out of this meeting?"	OMDP co-chairs CORDEX co-chairs S2S co-chairs DCPD co-chairs WWRP and GAW (E. De Coning)

1215-1330	Lunch ( <i>Conf 1&amp;2 divided; horseshoe tables in each</i> )	
<b>Split into Working Groups for parallel Group meetings or bi-laterals</b> <i>(coffee/tea 1500-1530)</i>		
<b>WGNE Session I (Conference Room 1)</b>		
1330-1500	<b>WGNE meeting and presentations</b> Introductions, Expected outcomes from meeting, etc. (20 min) JWGFVR (30 min)  Verification session (deterministic and ensemble scores, TC verification, precip, etc.) (40 min)	WGNE co-chairs  Marion Mittermaier  Nils Wedi, Junichi Ishida, Francois Bouyssel
1530-1700	GASS & GLASS reports (30 mins)  Outcomes from WSE and development of WGNE strategy (1 hour)	Daniel Klocke, Michel Ek  Co-chairs to lead
<b>WGCM Session I (Conference Room 3+4)</b>		
1300-1315	<b>WGCM meeting and presentations</b> Welcome and introduction	WGCM co-chairs
1315-1500	CMIP6 status <ul style="list-style-type: none"> <li>- Update on forcings</li> <li>- CMIP6-Endorsed MIP updates</li> <li>- Status CMIP evaluation tools</li> <li>- Other ongoing CMIP activities</li> </ul> Discussion including future workshops	Veronika Eyring   WGCM members
1530-1700	CMIP6 infrastructure <ul style="list-style-type: none"> <li>- News from the WIP</li> <li>- Update on Data Request</li> <li>- Status model documentation with ES-DOC</li> <li>- Terms of use and acknowledgement for CMIP6</li> </ul> Discussion	K. Taylor, V Balaji   WGCM members
<b>WGSIP Session I (Conference Room 2)</b>		
1330-1500	<b>WGSIP meeting and presentations</b>	

	<p>Welcome, introductions, approval of the agenda, local arrangements (20 min)</p> <p>Review of WGSIP18 actions (20 min)</p> <p>WGSIP's role and presence in WCRP, objectives of meeting in relation to WGSIP's aims and WCRP Strategy (25 min)</p> <p><b>Modeling centers update</b></p> <p>ECMWF (15 min)</p>	<p>WGSIP co-chairs</p> <p>L. Ferranti</p>
1530-1700	<p><b>Modeling centers update</b> (continued, 10 min each)</p> <p>ECCC/GEM-NEMO (Canada)</p> <p>BSC (Spain)</p> <p>CNU (Korea)</p> <p>CIMA (Argentina)</p> <p>ICTP (Italy)</p> <p>INM RAS (Russia)</p> <p>JMA/MRI (Japan)</p> <p>Met Office (UK)</p> <p>NILU (Norway)</p>	<p>H. Lin (S2S)</p> <p>F. Doblas-Reyes</p> <p>J.-H. Jeong</p> <p>R. Saurral</p> <p>A. Tompkins</p> <p>M. Tolstykh</p> <p>T. Yasuda</p> <p>D. Smith</p> <p>Y. Orsolini</p>
<b>OMDP Session I (C2-1&amp;2)- Room limit 20</b>		
1330-1500	<p><b>OMDP meeting and presentations</b></p> <p>Introductions, Meeting Overview, and Expected Outcomes</p> <p>JRA55-do Dataset</p>	<p>Co-chairs</p> <p>Hiroyuki Tsujino</p>
1530-1700	<p>Simulations with MRI and JAMSTEC models</p> <p>Simulations with CESM</p>	<p>Hiroyuki Tsujino</p> <p>Gokhan Danabasoglu</p>
<b>CORDEX Session I (FG-4) – Room limit 12</b>		
1330-1500	<p><b>CORDEX meeting and presentations</b></p> <p>Welcome and introduction</p> <p>General CORDEX updates</p>	<p>Co-chairs</p>

	<ul style="list-style-type: none"> <li>• WCRP strategy and regional scoping document</li> <li>• The regional scoping document and CORDEX role within the WCRP structure</li> </ul>	Michel Rixen Co-chairs
1530-1700	CORDEX new simulations CORE simulations – status FPS status	Filippo Giorgi Irène Lake
<b>S2S Session I (C1-1&amp;2) - Room limit 20</b>		
1330-1500	<b>S2S meeting and presentations</b>	S2S members
1530-1700		S2S members
1700	Drinks reception with Met Office posters	

**TUESDAY OCTOBER 10<sup>TH</sup>**

<b>Split into Working Groups for parallel Group meetings or bi-laterals</b> (coffee/tea 1000-1030; lunch 1230-1330; coffee/tea 1500-1530)		
<b>WGNE Session 2 (Conference Room 1)</b>		
0900-1030	<b>Joint session with WGCM (Conference room 1)</b> Climate metrics and diagnostic panel (10 mins) Status/plans of major evaluation tools (10 mins each): <ul style="list-style-type: none"> <li>- PMP, ILAMB, LST</li> <li>- ESMValTool</li> <li>- Obs4MIPs</li> </ul> Clouds, circulation & CS GC/CFMIP (15 min) Drag project report (15 min)	P. Gleckler  P. Gleckler V. Eyring P.Gleckler/D. Waliser  Mark Webb  Ayrton Zadra
1100-1230	<b>Joint session with WGSIP &amp; S2S (Conf. room 1)</b> MJO-TF & YMC (30 min) Teleconnections & YTMIT presentation (20 min) Discussion (10min)	Steve Woolnough Hai Lin

	Aerosols project (20 min)	WGNE to introduce
1330-1500	<b>Joint session with WGSIP, S2S &amp; OMDP (Conf. rm 1)</b> SPARC report (15 min) PDEF report (15 min) Initial drifts/shocks (30 min) DAOS report (focus on initialisation of coupled models) (15 min) Discussion (15 min)	John McCormack Oscar Alves Bill Merryfield Carla Cardinali
1530-1700	<b>WGNE meeting and presentations</b> WGNE poster session (45 min) Blue book (10 min) WGNE website (10 min) YOPP report (15 min)  APPLICATE (15min)	Elena Astakhova Elena Astakhova Michael Ek & Francois Engelbrecht Irina Sandu (by teleconf.)
<b>WGCM Session 2 (Conference Room 3+4)</b>		
0900-1030	<b>Joint session with WGNE (Conference room 1)</b> Climate metrics and diagnostic panel (10 mins) Status/plans of major evaluation tools (10 mins each): <ul style="list-style-type: none"> <li>- PMP, ILAMB, LST</li> <li>- ESMValTool</li> <li>- Obs4MIPs (10 min)</li> </ul> Clouds, circulation & CS GC/CFMIP (15 min) Drag project report (15 min)	P. Gleckler  P. Gleckler V. Eyring P.Gleckler/D. Waliser Mark Webb Ayrton Zadra
1100-1230	<b>WGCM meeting and presentations</b>	WGCM members
1100-1115	Carbon Feedbacks in the Climate System GC	P. Friedlingstein
1115-1230	Model group reports (10 min talks including discussion unless otherwise) <ul style="list-style-type: none"> <li>- Australia: ACCESS, VRESM (Australia / South Africa)</li> <li>- Canada: CanESM</li> <li>- China: BCC, BNU, CAMS-CMS, CasESM, CESS-THU, FGOALS, FIO, NUIST, TaiESM (Taiwan/China)</li> </ul>	Dave Bi Greg Flato Tianjun Zhou

	<p>[25 minutes]</p> <ul style="list-style-type: none"> <li>- EC Earth</li> <li>- France: CNRM, IPSL-CM6 (Masa Kageyama)</li> </ul>	B. van den Hurk Masa Kageyama
1330-1500	<p>Model group reports continued:</p> <ul style="list-style-type: none"> <li>- Germany AWI-CM, EMAC, MPI-ESM [20 minutes]</li> <li>- India IITM-ESM</li> <li>- Japan MIROC, MRI, NICAM</li> <li>- UK/Korea UKESM, HadGEM3, NIMS-KMA, SAM0-UNICON [20 minutes]</li> <li>- USA: CESM2, DOE-ACME</li> <li>- USA: GFDL, GISS</li> <li>- Other groups CMCC (Italy), INM (Russia), BESM (Brazil), NorESM (Norway)</li> </ul>	<p>Veronika Eyring Swapna Panickal Michio Kawamiya Cath Senior</p> <p>Jerry Meehl Ron Stouffer C. Senior/G. Flato</p>
1530-1700	<p><b>Joint Session with CORDEX (Conference room 3+4)</b></p> <p>Regional downscaling for CMIP6/CORDEX CORE-CMIP6</p> <p>Links from WGI to WGII, Contribution to AR6</p>	WGCM and CORDEX members
1845	<b>WGCM dinner at Cote, Exeter</b>	
<b>WGSIP Session 2 (Conference Room 2)</b>		
0900-1030	<p><b>WGSIP meeting and presentations</b></p> <p><b>Modeling centers (conclusion) &amp; related initiatives</b></p> <p>IRI (USA) &amp; S2S updates (15 min)</p> <p>Copernicus Climate Change Services (C3S) (10 min)</p> <p>U. Hamburg (Germany)/DWD/GFCS (10 min)</p> <p>Blue Action Arctic (10 min)</p> <p>PA-MIP / APPLICATE (10 min)</p> <p>YOPP developments relevant to WGSIP (10 min)</p> <p>FRAMS/WMO Polar Regional Climate Centre (10 min)</p> <p>NMME (5 min)</p> <p>Discussion on opportunities for WGSIP collaboration and contributions (10 min)</p>	<p>A. Robertson</p> <p>A. Brookshaw (S2S)</p> <p>J. Baehr</p> <p>J. Baehr</p> <p>D. Smith</p> <p>M. Tolstykh</p> <p>W. Merryfield</p> <p>W. Merryfield</p>
1100-1230	<p><b>Joint session with S2S &amp; WGNE (Conf. room 1)</b></p> <p>MJO-TF &amp; YMC (30 min)</p> <p>Teleconnections &amp; YTMIT presentation (20 min)</p> <p>Discussion (10 min)</p>	<p>Steve Woolnough</p> <p>Hai Lin</p>

	Aerosols project (20 min)	WGNE to introduce
1330-1500	<b>Joint session with S2S, WGNE &amp; OMDP (Conf. rm 1)</b> SPARC report (15 min) PDEF report (15 min) Initial drifts/shocks (30 min) DAOS report (focus on initialisation of coupled models) (15 min) Discussion (15 min)	John McCormack Oscar Alves Bill Merryfield Carla Cardinali
1530-1700	<b>WGSIP meeting and presentations</b> Science talk: Skilful seasonal predictions for the European energy industry (30 min) <b>WGSIP Projects</b> SNOWGLACE (15 min) Teleconnections (15 min) CHFP (15 min) Discussion on opportunities for collaboration, data standards, etc. (15 min)	Hazel Thornton (Met Office)  Y. Orsolini and J.-H. Jeong L. Ferranti R. Saurral
<b>OMDP Session 2 (C2-1&amp;2)- Room limit 20</b>		
0900-1030	<b>OMDP meeting and presentations</b> Simulations with ORCA025 at Kiel Simulations with ORCA025 at CMCC Simulations with HYCOM Simulations with ACCESS-OM	Claus Boening Simona Masina Eric Chassignet Simon Marsland
1100-1230	Repeat Year Forcing (RYF)  RYF simulations with ACCESS-OM	Gokhan Danabasoglu Simon Marsland
1330-1500	<b>Joint session with WGSIP, S2S &amp; WGNE (Conf. 1)</b> SPARC report (15 min) PDEF report (15 min) Initial drifts/shocks (30 min)	John McCormack Oscar Alves Bill Merryfield

	DAOS report (focus on initialisation of coupled models) (15 min) Discussion (15 min)	Carla Cardinali
1530-1700	Regional modeling experience Formulation of wind stress (absolute vs relative) Review and finalization of JRA55-do; Timeline for “high-res inter-comparison” paper(s)	Enrique Curchitser Claus Boening All
<b>CORDEX Session 2 (FG-4) – Room limit 12</b>		
0900-1030	<b>CORDEX meeting and presentations</b> Updates from CORDEX domains incl ESD Specific Added value action	CORDEX members
1100-1230	Scientific Challenges Convection Permitting Modelling	CORDEX members
1330-1500	CORDEX SCOPE/Future direction <ul style="list-style-type: none"> <li>• The action Plan/strategy</li> <li>• Contribution to IPCC</li> <li>• Interactions with other WCRP programs</li> </ul>	CORDEX members
1530-1700	<b>Joint Session with WGCM (Conference room 3+4)</b> <ul style="list-style-type: none"> <li>• Regional downscaling for CMIP6/CORDEX CORE-CMIP6</li> <li>• Links from WGI to WGII, Contribution to AR6</li> </ul>	CORDEX and WGCM members
<b>S2S Session 2 (C1-1&amp;2) - Room limit 20</b>		
0900-1030	<b>S2S meeting and presentations</b>	S2S members
1100-1230	<b>Joint session with WGSIP &amp; WGNE (Conf. room 1)</b>	



	MJO-TF & YMC (30 min) Teleconnections & YTMIT (20 min) Discussion (10 min) Aerosols project (20 min)	Steve Woolnough Hai Lin  WGNE to introduce
1330-1500	<b>Joint session with WGSIP, WGNE &amp; OMDP (Conf. 1)</b> SPARC report (15 min) PDEF report (15 min) Initial drifts/shocks (30 min) DAOS report (focus on initialisation of coupled models) (15 min) Discussion (15 min)	John McCormack Oscar Alves Bill Merryfield Carla Cardinali
1530-1700	<b>S2S meeting and presentations</b>	S2S members

### WEDNESDAY OCTOBER 11<sup>TH</sup>

**Parallel sessions on joint topics of interest** Attendees to split between them. Switch of session possible during breaks. Each session is hence conducted twice for approx. 90 mins, allowing everyone to attend 4 different topics during the day (coffee/tea 1030-1100 & 1500-1530)

0900-0915	Introduction to breakout sessions	Plenary (Conf. 1)
0915-1230	1. Modelling the Regional Climate – Regional and high-resolution global models Session Organizers: Bill Gutowski & Julio Bacmeister	Conference room 1
0915-1230	2. Earth System Modelling in WCRP – Needs from the physical system and opportunities for collaboration Session Organizers: Pierre Friedlingstein & Gerhard Krinner	Conference room 3&4
0915-1230	3. Modelling infrastructure, data standards and protocols Session Organizers: V. Balaji and Karl Taylor	C1-1&2

0915-1230	4. New observations and the use of models for designing/developing observing systems Session Organizers: Carla Cardinali & Duane Waliser	C2-1&2
1230-1330	Lunch	
1330-1700	5. Diagnostics, Metrics and Evaluation Session Organizers: Peter Gleckler & Marion Mittermaier	Conference room 1
1330-1700	6. Towards seamless weather and climate predictions Session Organizers: Frederic Vitard & Keith Williams	Conference room 3&4
1330-1700	7. Linking Models to User Communities Session Organizers: Andrew Robertson & Daniela Jacob	C1-1&2
1330-1700	8. Multi-model synthesis and associated uncertainties Session Organizers: Paco Doblus-Reyes & Greg Flato	C2-1&2

**THURSDAY OCTOBER 12<sup>TH</sup>**

***Split into Working Groups for parallel Group meetings or bi-laterals***

*(coffee/tea 1030-1100)*

***WGNE Session 3 (Conference Room 1)***

0900-1030	<b>WGNE meeting and presentations</b> Current issues and challenges in ensemble forecasting. (20min) Preparation for a field campaign on improving fog modelling. (10min) RELAMPAGO-CACTI project. (15min) Medium range impacts of coupled modelling. (15min) Representing aerosol indirect effects in CESM. (15min) Evaluation of convective cloud height. (15min)	Carolyn Reynolds / Junchi Ishida Francois Bouyssel Ariane Frassoni Nils Wedi Julio Bacmeister Junichi Ishida
1100-1200	Numerics of the cube-based CMIP6 model at CSIR. (15min)	Francois Engelbrecht

	Summary of WGNE actions (45 min)	Co-chairs to lead
<b>WGCM Session 3 (Conference Room 3+4)</b>		
0900-1030	<b>WGCM meeting and presentations</b> Strategic direction for WGCM <ul style="list-style-type: none"> <li>- Overview (15mins)</li> <li>- Fostering links to the VIACs community (15 mins)</li> </ul> Discussion	Greg Flato Claas Teichmann
1100-1200	<b>WGCM issues</b> <ul style="list-style-type: none"> <li>- Membership</li> <li>- Actions arising</li> <li>- Topic and location of next meeting</li> </ul>	WGCM members only
<b>WGSIP Session 3 (Conference Room 2)</b>		
0900-1030	<b>WGSIP meeting and presentations</b> <b>Linkages with WMO, GC-NCTP and DCPP</b> Discussion on development of research-to-operations (R2O) and operations-to-research (O2R) collaboration opportunities (30 min) Discussion on interacting and complementary roles of DCPP, Grand Challenge on Near-Term Climate Prediction (GC-NTCP), WMO Lead Centre for Annual to Decadal Climate Prediction (LC-ADCP), WGSIP (40min) Science talk: Advancements and setbacks in the development of a decadal climate prediction system (20 min)	WMO ET-OPSLS co-chairs and WGSIP DCPP and GC co-chairs, LC representative, WGSIP W. Müller (DCPP)
1100-1200	<b>WGSIP business</b> Emerging challenges for WCRP strategy (10 min) Evolution of and future of WGSIP projects (10 min) Next session (10 min) Memberships (10 min) Review of draft actions list (20 min)	WGSIP co-chairs
<b>OMDP Session 3 (C2-1&amp;2)- Room limit 20</b>		
0900-1030	<b>OMDP meeting and presentations</b> Diagnostics and Evaluation of eddy-resolving / eddying	Julien Le

	ocean models Regional modeling efforts at MRI	Sommer  Hiroyuki Tsujino
1100-1200	Membership; Next Panel meeting; Workshop; Future directions	
<b>CORDEX Session 3 (FG-4) – Room limit 12</b>		
0900-1030	<b>CORDEX meeting and presentations</b> CORDEX SCOPE/Future direction continued <ul style="list-style-type: none"> <li>• Possible cooperation with WB</li> <li>• Budget/priorities for 2018, possible sponsors</li> <li>• Next ICRC-CORDEX conference – funders, timing etc</li> </ul>	CORDEX members
1100-1200	CORDEX issues <ul style="list-style-type: none"> <li>• Membership</li> <li>• Use of CORDEX info/link to VIA+others</li> <li>• Topic and location of next meeting (telecon on the strategy)</li> </ul>	CORDEX members
<b>S2S Session 3 (C1-1&amp;2) - Room limit 20</b>		
0900-1030	<b>S2S meeting and presentations</b>	S2S members
1100-1200		S2S members
1200-1300	Lunch ( <i>Conf. 1&amp;2 divide removed; theatre-style seats</i> )	
<b>Plenary session on summarizing and synthesizing outcomes of breakout groups (Conference Room 1+2)</b>		
1300-1500	Reports from 8 breakout groups: 5 minutes summary report and 10 minutes discussion for each	
1500-1530	Tea and Coffee	
<b>Plenary session contd.</b>		

1530-1700	Discussion session, overarching issues, next actions, and report to JSC (WMAC co-chairs)	
1700 – End of meeting for those not attending WMAC (Conf. 1&2 divided; horseshoe tables in Conf. 2)		

## FRIDAY OCTOBER 13<sup>TH</sup>

<b>WMAC meeting</b> (Conference Room 2) (coffee/tea 1030-1100. Lunch not provided – canteen available) – Members and invitees		
0900-0915	Welcome and adoption of agenda	WMAC co-chairs
0915-0945	WCRP Sponsors' Review update and implications for strategic planning for modelling in WCRP (15 minute presentation, 15 minutes questions/discussion)	Dame Julia Slingo
0945-1030	Outcomes from Pan-WCRP Modelling Meeting, WCRP strategic planning, implications for modelling in WCRP	WMAC co-chairs
1030-1100	Coffee/Tea Break	
	<i>The presentations/discussion from the Working Groups and projects are intended to focus on relevant outcomes from what went on during the Pan-WCRP Modelling Meeting with regards to a strategy for modelling in WCRP. Comments can be made regarding the overall WCRP strategic planning as well</i>	
1100-1120	WGCM update in response to outcomes of Pan-WCRP Modelling Meeting (10 minute presentation, 10 minutes questions/discussion)	WGCM co-chairs
1120-1140	WGSIP update in response to outcomes of Pan-WCRP Modelling Meeting (10 minute presentation, 10 minutes questions/discussion)	WGSIP co-chairs
1140-1200	WGNE update in response to outcomes of Pan-WCRP Modelling Meeting update (10 minute presentation, 10 minutes questions/discussion)	WGNE co-chairs
1200-1215	S2S update in response to outcomes of Pan-WCRP Modelling Meeting update (8 minute presentation, 7 minutes questions/discussion)	S2S co-chairs

1215-1230	CORDEX update in response to outcomes of Pan-WCRP Modelling Meeting update (8 minute presentation, 7 minutes questions/discussion)	CORDEX co-chairs
1230-1330	Lunch	
1330-1345	OMDP update in response to outcomes of Pan-WCRP Modelling Meeting update (8 minute presentation, 7 minutes questions/discussion)	OMDP co-chairs
1345-1500	Synthesis of the week, formulate recommendations to JSC	WMAC co-chairs
1500-1515	Miscellaneous <ul style="list-style-type: none"> <li>- International Prize on Model Development</li> <li>- Summer schools</li> </ul>	WMAC co-chairs
1515-1530	Business <ul style="list-style-type: none"> <li>- Next session</li> <li>- Memberships</li> </ul>	WMAC co-chairs

**DCPP meeting** (Conference Room 3+4) (coffee/tea 1030-1100. Lunch not provided – canteen available)

0900-1700	<b>DCPP meeting</b>	DCPP members
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**IN PRINCIPLE AND UNLESS STATED OTHERWISE:**

- CMIP PANEL AND WGCM EX-OFFICIO MEMBERS ARE WELCOME TO ATTEND THE WGCM SESSION
- WGNE EX-OFFICIO MEMBERS ARE WELCOME TO ATTEND THE WGNE SESSION
- DCPP MEMBERS ARE WELCOME TO ATTEND THE WGSIP SESSION
- OTHER INVITEES MAY ELECT THEIR SESSION OF INTEREST AS APPROPRIATE