## 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>ssion I</b> (Conference Room 1+2 theatre-style): WGCM, WG RDEX, S2S, DCPP <b>Chairs: WMAC Co-Chairs</b>	SNE, WGSIP,
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)	OMDP co-chairs
	Specific question to be addressed: "What does your group want to get out of this meeting?"	CORDEX co- chairs
		S2S co-chairs
		DCPP co-chairs
		WWRP and GAW (E. De Coning)
		(E. De Coning)

1215-1330	Lunch (Conf 1&2 divided; horseshoe tables in each)		
-	Split into Working Groups for parallel Group meetings or bi-laterals (coffee/tea 1500-1530)		
WGNE Ses	sion I (Conference Room 1)		
1330-1500	WGNE meeting and presentations Introductions, Expected outcomes from meeting, etc. (20 min) JWGFVR (30 min)	WGNE co-chairs Marion Mittermaier Nils Wedi, Junichi	
	Verification session (deterministic and ensemble scores, TC verification, precip, etc.) (40 min)	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	
WGCM Ses	sion I (Conference Room 3+4)		
	WGCM meeting and presentations		
1300-1315 1315-1500	<ul> <li>Welcome and introduction</li> <li>CMIP6 status</li> <li>Update on forcings</li> <li>CMIP6-Endorsed MIP updates</li> <li>Status CMIP evaluation tools</li> <li>Other ongoing CMIP activities</li> </ul>	WGCM co-chairs Veronika Eyring	
1530-1700	<ul> <li>Discussion including future workshops</li> <li>CMIP6 infrastructure <ul> <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> </li> <li>Discussion</li> </ul>	WGCM members K. Taylor, V Balaji WGCM members	
WGSIP Ses	WGSIP Session I (Conference Room 2)		
1330-1500	WGSIP meeting and presentations		

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

	<ul> <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 Iréne Lake
S2S Sessio	on I (C1-1&2) - Room limit 20	
1330-1500	S2S meeting and presentations	S2S members
1530-1700		S2S members
1700	Drinks reception with Met Office posters	

## TUESDAY OCTOBER 10TH

Split into Working Groups for parallel Group meetings or bi-laterals (coffee/tea 1000-1030; lunch 1230-1330; coffee/tea 1500-1530)		
WGNE Ses	sion 2 (Conference Room 1)	
0900-1030	Joint session with WGCM (Conference room 1) Climate metrics and diagnostic panel (10 mins) Status/plans of major evaluation tools (10 mins each): - PMP, ILAMB, LST - ESMValTool - Obs4MIPs Clouds, circulation & CS GC/CFMIP (15 min)	P. Gleckler P. Gleckler V. Eyring P.Gleckler/D. Waliser Mark Webb Ayrton Zadra
1100-1230	Drag project report (15 min) Joint session with WGSIP & S2S (Conf. room 1) 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	Joint session with WGSIP, S2S & OMDP (Conf. rm 1)	
	SPARC report (15 min)	John McCormack
	PDEF report (15 min)	Oscar Alves
	Initial drifts/shocks (30 min)	Bill Merryfield
	DAOS report (focus on initialisation of coupled models) (15 min)	Carla Cardinali
	Discussion (15 min)	
1530-1700	WGNE meeting and presentations	
	WGNE poster session (45 min)	
	Blue book (10 min)	Elena Astakhova
	WGNE website (10 min)	Elena Astakhova
	YOPP report (15 min)	Michael Ek & Francois Engelbrecht
	APPLICATE (15min)	Irina Sandu (by teleconf.)
WGCM Ses	sion 2 (Conference Room 3+4)	
0900-1030	Joint session with WGNE (Conference room 1)	
	Climate metrics and diagnostic panel (10 mins)	P. Gleckler
	Status/plans of major evaluation tools (10 mins each):	
	<ul> <li>PMP, ILAMB, LST</li> <li>ESMValTool</li> <li>Obs4MIPs (10 min)</li> </ul>	P. Gleckler V. Eyring P.Gleckler/D. Waliser
	Clouds, circulation & CS GC/CFMIP (15 min) Drag project report (15 min)	Mark Webb Ayrton Zadra
1100-1230	WGCM meeting and presentations	WGCM members
1100-1115	Carbon Feedbacks in the Climate System GC	P. Friedlingstein
1115-1230	<ul> <li>Model group reports (10 min talks including discussion unless otherwise)</li> <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

- EC Earth	B. van den Hurk
- France: CNRM, IPSL-CM6 (Masa Kageyama)	Masa Kageyama
Model group reports continued:	
<ul> <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>	Veronika Eyring Swapna Panickal Michio Kawamiya Cath Senior Jerry Meehl Ron Stouffer C. Senior/G. Flato
	WGCM and
Regional downscaling for CMIP6/CORDEX CORE- CMIP6	CORDEX members
Links from WGI to WGII, Contribution to AR6	
WGCM dinner at Cote, Exeter	
WGSIP Session 2 (Conference Room 2)	
WGSIP meeting and presentations	
Modeling centers (conclusion) & related initiatives	
IRI (USA) & S2S updates (15 min)	A. Robertson
Copernicus Climate Change Services (C3S) (10 min)	A. Brookshaw (S2S)
U. Hamburg (Germany)/DWD/GFCS (10 min)	J. Baehr
Blue Action Arctic (10 min)	J. Baehr
PA-MIP / APPLICATE (10 min)	D. Smith
YOPP developments relevant to WGSIP (10 min)	M. Tolstykh
FRAMS/WMO Polar Regional Climate Centre (10 min)	W. Merryfield
NMME (5 min)	W. Merryfield
Discussion on opportunities for WGSIP collaboration and contributions (10 min)	
Joint session with S2S & WGNE (Conf. room 1)	
MJO-TF & YMC (30 min)	Steve Woolnough
Teleconnections & YTMIT presentation (20 min) Discussion (10 min)	Hai Lin
	<ul> <li>France: CNRM, IPSL-CM6 (Masa Kageyama)</li> <li>Model group reports continued:         <ul> <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, SAMO-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> </li> <li>Joint Session with CORDEX (Conference room 3+4)</li> <li>Regional downscaling for CMIP6/CORDEX CORE-CMIP6</li> <li>Links from WGI to WGII, Contribution to AR6</li> <li>WGCM dinner at Cote, Exeter</li> <li>WGSIP meeting and presentations</li> <li>Modeling centers (conclusion) &amp; related initiatives</li> <li>IRI (USA) &amp; S2S updates (15 min)</li> <li>Copernicus Climate Change Services (C3S) (10 min)</li> <li>U. Hamburg (Germany)/DWD/GFCS (10 min)</li> <li>Blue Action Arctic (10 min)</li> <li>PA-MIP / APPLICATE (10 min)</li> <li>YOPP developments relevant to WGSIP (10 min)</li> <li>FRAMS/WMO Polar Regional Climate Centre (10 min)</li> <li>NMME (5 min)</li> <li>Discussion on opportunities for WGSIP collaboration and contributions (10 min)</li> <li>Teleconnections &amp; YTMIT presentation (20 min)</li> </ul>

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

1530-1700	DAOS report (focus on initialisation of coupled models) (15 min) Discussion (15 min) Regional modeling experience Formulation of wind stress (absolute vs relative) Review and finalization of JRA55-do; Timeline for "high-res inter-comparison" paper(s)	Carla Cardinali Enrique Curchitser Claus Boening All
CORDEX S	ession 2 (FG-4) – Room limit 12	
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	<ul> <li>CORDEX SCOPE/Future direction</li> <li>The action Plan/strategy</li> <li>Contribution to IPCC</li> <li>Interactions with other WCRP programs</li> </ul>	CORDEX members
1530-1700	<ul> <li>Joint Session with WGCM (Conference room 3+4)</li> <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</b> (C1-1&2) - Room limit 20		
0900-1030	S2S meeting and presentations	S2S members
1100-1230	Joint session with WGSIP & WGNE (Conf. room 1) MJO-TF & YMC (30 min)	Steve Woolnough

	Teleconnections & YTMIT (20 min)	Hai Lin
	Discussion (10 min)	
	Aerosols project (20 min)	WGNE to introduce
1330-1500	Joint session with WGSIP, WGNE & OMDP (Conf. 1)	
	SPARC report (15 min)	John McCormack
	PDEF report (15 min)	Oscar Alves
	Initial drifts/shocks (30 min)	Bill Merryfield
	DAOS report (focus on initialisation of coupled models) (15 min)	Carla Cardinali
	Discussion (15 min)	
1530-1700	S2S meeting and presentations	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	<ol> <li>Modelling the Regional Climate – Regional and high- resolution global models</li> <li>Session Organizers: Bill Gutowski &amp; Julio Bacmeister</li> </ol>	Conference room 1
0915-1230	<ol> <li>Earth System Modelling in WCRP – Needs from the physical system and opportunities for collaboration</li> <li>Session Organizers: Pierre Friedlingstein &amp; Gerhard Krinner</li> </ol>	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	C2-1&2

	designing/developing observing systems Session Organizers: Carla Cardinali & Duane Waliser	
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 Doblas-Reyes & Greg Flato	C2-1&2

## THURSDAY OCTOBER 12TH

Split into Working Groups for parallel Group meetings or bi-laterals (coffee/tea 1030-1100)			
WGNE Session 3 (Conference Room 1)			
0900-1030	WGNE meeting and presentations		
	Current issues and challenges in ensemble forecasting. (20min)	Carolyn Reynolds / Junchi Ishida	
	Preparation for a field campaign on improving fog modelling. (10min)	Francois Bouyssel	
	RELAMPAGO-CACTI project. (15min)	Ariane Frassoni	
	Medium range impacts of coupled modelling. (15min)	Nils Wedi	
	Representing aerosol indirect effects in CESM. (15min)	Julio Bacmeister	
	Evaluation of convective cloud height. (15min)	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	

WGCM Ses	sion 3 (Conference Room 3+4)	
0900-1030	<ul> <li>WGCM meeting and presentations</li> <li>Strategic direction for WGCM</li> <li>Overview (15mins)</li> <li>Fostering links to the VIACs community (15 mins)</li> <li>Discussion</li> </ul>	Greg Flato Claas Teichmann
1100-1200 WGSIP Ses	<ul> <li>WGCM issues</li> <li>Membership</li> <li>Actions arising</li> <li>Topic and location of next meeting</li> <li>sion 3 (Conference Room 2)</li> </ul>	WGCM members only
0900-1030	WGSIP meeting and presentations Linkages with WMO, GC-NCTP and DCPP Discussion on development of research-to-operations	WMO ET-OPSLS
	<ul> <li>(R2O) and operations-to-research (O2R) collaboration opportunities (30 min)</li> <li>Discussion on interacting and complementary roles of DCPP, Grand Challenge on Near-Term Climate</li> <li>Prediction (GC-NTCP), WMO Lead Centre for Annual to Decadal Climate Prediction (LC-ADCP), WGSIP (40min)</li> <li>Science talk: Advancements and setbacks in the development of a decadal climate prediction system (20 min)</li> </ul>	co-chairs and WGSIP DCPP and GC co-chairs, LC representative, WGSIP W. Müller (DCPP)
1100-1200	WGSIP business 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
OMDP Session 3 (C2-1&2)- Room limit 20		
0900-1030	<b>OMDP meeting and presentations</b> Diagnostics and Evaluation of eddy-resolving / eddying ocean models	Julien Le Sommer

	Regional modeling efforts at MRI	Hiroyuki Tsujino	
1100-1200	Membership; Next Panel meeting; Workshop; Future directions		
CORDEX Session 3 (FG-4) – Room limit 12			
0900-1030	<ul> <li>CORDEX meeting and presentations</li> <li>CORDEX SCOPE/Future direction continued</li> <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	<ul> <li>CORDEX issues</li> <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	
S2S Session 3 (C1-1&2) - Room limit 20			
0900-1030	S2S meeting and presentations	S2S members	
1100-1200		S2S members	
1200-1300	Lunch (Conf. 1&2 divide removed; theatre-style seats)		
<b>Plenary session on summarizing and synthesizing outcomes of breakout groups</b> (Conference Room 1+2)			
1300-1500	Reports from 8 breakout groups: 5 minutes summary report and 10 minutes discussion for each		
1500-1530	Tea and Coffee		
Plenary session contd.			
1530-1700	Discussion session, overarching issues, next actions, and report to JSC (WMAC co-chairs)		
1700 – End of meeting for those not attending WMAC ( <i>Conf. 1&amp;2 divided; horseshoe tables in Conf. 2</i> )			

### FRIDAY OCTOBER 13TH

<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	
	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	
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> <li>International Prize on Model Development</li> <li>Summer schools</li> </ul>	WMAC co-chairs
1515-1530	Business - Next session - Memberships	WMAC co-chairs

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

 0900-1700
 DCPP meeting

 DCPP meeting
 DCPP members

#### 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