

**MEETING AGENDA**  
WGNE-31, 26-29 April 2016

Council for Scientific and Industrial Research (CSIR)  
Pretoria, South Africa  
<http://wgne2016.csir.co.za/>

## Day 1

**08h30 – 10h10**

### **Opening discussions and reports from related groups**

**Welcome. Adoption of the Agenda. Local Arrangements** (20 min)

Co-chairs, Francois Engelbrecht

**Welcome by CSIR** (20 min)

Prof. May Hermanus, Executive Director - CSIR Natural Resources and the Environment

**Meeting Goals and Actions from last meeting** (35 min)

Co-chairs

**WCRP matters (incl. WMAC summary)** -- and implications for WGNE (20 min + 5 min Q's)

Deon Terblanche

**10h10 - 10h40**

**Break**

**10h40 - 12h40**

**CAS & WWRP matters -- and implications for WGNE** (20 min + 5 min Q's)

Oysten Hov

**GAW matters -- and implications for WGNE** (20 min + 5 min Q's) (discussion on WGNE focal point for GAW)

Kobus Pienaar

**SPARC report – and WGNE role** (20 min + 5 min Q's)

Quentin Errera

**Outcomes from recent workshops (emphasis on anything that may inform future work of WGNE)** (45min)

- CLIVAR, Nov 2015
- SEARCH Arctic Open Science meeting, Nov 2015
- WGCM, Nov 2015
- GEWEX, Jan 2016
- Understanding Clouds and Precip (UCP), Feb 2016
- Submesoscale processes, Jan 2016
- Blocking workshop, Apr 2016

**12h40 – 13h40**

**Lunch**

**13h40 – 14h30**

**YOPP report- and WGNE role** (20 min + 5 min Q's)

Thomas Jung (by video)

**GOV report** (20 min + 5 min Q's)

Hal Ritchie (by video)

**14h30 – 15h00**

**Break**

**15h00 – 17h00**

**Numerical methods** – What recent developments have there been? Where are there gaps? Do we need to initiate any activities?

**Improving ECMWF's IFS model** (30 min + 10 min Q's)

Nils Wedi

**Recent developments in Numerical Methods** (30 min + 10 min Q's)

Michael Baldauf

Discussion on numerical methods (gaps in analysis, recommendations etc.) (40 min)

**17h00 – 19h00**

**WGNE reception**



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## Day 2

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| <b>08h30 – 10h35</b> | <p><b>Model evaluation</b> – Are new systematic errors being identified? Is there sufficient effort on existing systematic errors? Are there promising techniques which should be more widely adopted? Is the routine verification and evaluation sufficiently comprehensive?</p> <p><b>Deterministic and ensemble verification scores?</b> (25 min + 5 min Q's)<br/>Nils Wedi</p> <p><b>TC verification</b> (25 min + 5 min Q's)<br/>Junichi Ishida</p> <p><b>Precipitation Verification</b> (25 min + 5 min Q's)<br/>Francois Bouyssel</p> <p><b>Subjective evaluation of NWP operational French models</b> (10 min + 5 min Q's)<br/>Francois Bouyssel</p> <p><b>Using satellite simulators for cloud evaluation</b> (15 min + 5 min Q's)<br/>Keith Williams</p> |
| <b>10h35 – 11h05</b> | <b>Break</b>   |
| <b>11h05 – 12h40</b> | <p><b>MJO-TF – current activities and next steps</b> (20 min + 5 min Q's)<br/>Steve Woolnough (by video)</p> <p>Discussion identifying common systematic errors, any new projects required - especially where is more investigation required ahead of Sys err workshop. Is sufficient forensic/process-based work being done? (35 min)</p> <hr/> <p><b>Other activities linked to WGNE</b></p> <hr/> <p><b>CMIP timescales, esp. WGNE involvement in HIGHRESMIP</b> (20 min + 5 min Q's)<br/>Julio Bacmeister</p> <hr/> <p><b>WGNE blue book - status and proposed changes</b> (10 min + 5 min Q's)<br/>Elena Astakhova</p>  |
| <b>12h40 – 13h40</b> | <b>Lunch</b>   |
| <b>13h40 – 15h00</b> | <p><b>Simulating the radiative forcing effects of Antarctic stratospheric ozone on southern African climate variability</b> (15 min + 5 min Q's)<br/>Francois Engelbrecht</p> <p><b>Operational implementation of GRAPES global forecast system</b><br/>(15 min + 5 min Q's)<br/>Jian Sun</p> <p><b>Current developments in the INPE/CPTec modeling system</b> (15 min + 5 min Q's)<br/>Ariane Frassoni</p> <p><b>Research in atmospheric modelling in Russia</b> (15 min + 5 min Q's)<br/>Elena Astakhova</p>   |
| <b>15h00 – 15h30</b> | <b>Break</b>   |

15h30 – 17h00

**Model evaluation (cont.)**

**Report from JWGFVR** (25 min + 5 min Q's)

Marion Mittermaier

**WGCM/WGNE climate metrics and diagnostics panel (CMDP)** (20 min + 5 min Q's)

Peter Gleckler (by video)

Discussion on future direction of JWGFVR & CMDP; sharing of knowledge etc. (30 min)

## Day 3

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| <b>08h30 – 10h25</b> | <p><b>Parametrization development</b> - What recent developments have there been? Where are there gaps? Is there synergy between the systematic errors identified in the evaluation session and activities in GASS and GLASS? Do we need to initiate any activities?</p> <p><b>Drag project – progress report</b> (20 min + 5 min Q's)<br/>Ayrton Zadra &amp; Julio Bacmeister</p> <p><b>Implementing the Cloud Layers Unified by Binormals (CLUBB) scheme in the Community Atmosphere Model (CAM)</b> (20 min + 5 min Q's)<br/>Julio Bacmeister</p> <p><b>Development of a new prognostic convection scheme for NWP and Climat Arpege global model</b> (10 min + 5 min Q's)<br/>Francois Bouyssel</p> <p><b>Issues with convection parametrization in the UM and ongoing work to improve it</b> (20 min + 5 min Q's)<br/>Keith Williams</p> <p><b>Paramaterization issues and related modelling challenges at the CMC</b><br/>(20 min + 5 min Q's)<br/>Ayrton Zadra</p> |
| <b>10h25 – 10h55</b> | <b>Break</b>   |
| <b>10h55 – 12h50</b> | <p><b>Recent developments in Mesoscale/high resolution NWP and new research development projects</b> (20 min + 5 min Q's)<br/>Deon Terblanche</p> <p><b>Recent progress in convective-scale and next generation global modelling at KMA</b> (20 min + 5 min Q's)<br/>Dong-Joon Kim</p> <p><b>What are the differences in physical parametrizations between Météo-France models (NWP vs Climat, global vs convective scale)?</b> (10 min + 5 min Q's)<br/>Francois Bouyssel</p> <p><b>Modelling convection with the operational kilometre scale model Arome : recent improvements and on-going research activities.</b> (10 min + 5 min Q's)<br/>Francois Bouyssel</p> <p><b>Lessons learned from JMA global and regional model development</b><br/>(25 min + 5 min Q's)<br/>Junichi Ishida</p>   |
| <b>12h50 – 13h50</b> | <b>Lunch</b>   |

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| <b>13h50 – 15h05</b> | <p><b>GASS report</b> (10 min + 10 min Q's)<br/>Keith Williams (slides from Jon Petch)</p> <p><b>GLASS report (20 min + 5 min Q's)</b><br/>Michael Ek</p> <p>Discussion on physical parametrizations (gaps, recommendations, any joint work with GASS/GLASS, links with discussion in the Sys Errors session around process-based evaluation, etc.)<br/>(30 min)</p>   |
| <b>15h05 – 15h35</b> | <b>Break</b>   |
| <b>15h35 – 16h00</b> | <p><b>Aerosols project progress report</b> (20 min + 5 min Q's)<br/>Saulo Freitas (by video)</p>   |
| <b>16h00 – 17h00</b> | <p><b>Host Science talks</b></p> <p>Dr. Mary-Jane Bopape (CSIR): "Simulating the Convective Boundary Layer with a Dynamic Smagorinsky Model".</p> <p>Prof. Willem Landman (UP): "Progress in seasonal forecasting in South Africa".</p> <p>Dr. Swadhin Behera (JAMSTEC): "The SINTEX-F seasonal predictability and its applicability for southern Africa".</p> <p>Dr. Yushi Morioka (JAMSTEC): "The role of mid and high latitude air-sea interactions in interannual to multiyear climate variations over southern Africa".</p> |
| <b>19h00 – 22h30</b> | <b>WGNE conference dinner - CSIR International Convention Centre</b>   |

## Day 4

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| <b>08h30 – 10h30</b> | <p><b>Projects related to coupled modelling</b> – What is WGNE’s role here (how does it relate to WGSIP, WGCM)? What is the best way for WGNE to contribute to these activities?</p> <p><b>PDEF report</b> (20 min + 5 min Q’s)<br/>Oscar Alves (by video)</p> <p><b>Recent developments in Ensemble Prediction</b> (25 min + 5 min Q’s)<br/>Junichi Ishida</p> <p><b>Recent developments in Data assimilation and DAOS report (incl. coupled DA)</b> (20 min + 5 min Q’s)<br/>Tom Hamill (by video)</p> <p><b>S2S project report</b> (20 min + 5 min Q’s)<br/>Frederic Vitart (by video)</p> <p><b>Integrated coupled modelling approach at NCEP</b> (10 min + 5 min Q’s)<br/>Michael Ek</p>  |
| <b>10h30 – 11h00</b> | <b>Break</b>   |
| <b>11h00 – 11h45</b> | <p><b>Actions and closing discussions</b> – Closed session for members and ex-officios only</p> <p><b>Meeting summary and discussion of future WGNE activities, including projects, workshops and meetings/conferences (known meetings listed below)</b></p> <ul style="list-style-type: none"><li>• Polar Lows working group, Apr 2016</li><li>• Arctic Science summit, Mar 2016</li><li>• CORDEX, May 2016</li><li>• WMO workshop on impacts of various observing systems on NWP, May 2016</li><li>• International Precipitation Working Group (IPWG) - NWP workshop, date to be defined (possibly in 2016)</li><li>• Pre-YOPP Workshops on Data, Arctic Observations/IOPs, and Modelling, Sep 2016</li><li>• ECMWF drag processes workshop, Sep 2016</li><li>• Model evaluation and reliability workshop, first half 2017</li><li>• Future of cumulus parametrization, Jun 2017</li><li>• WGNE Systematic Errors Workshop, Jun 2017</li><li>• Modelling Summit, 2017</li><li>• 4 ICESM, Sep 2017</li><li>• SPARC Gravity Wave Symposium, May 2016</li><li>• SPARC DynVar Workshop &amp; S-RIP Meeting, Jun 2016</li><li>• CLIVAR, Sep 2016</li><li>• DCMIP, Jun 2016</li><li>• S2S Teleconnections, 2017</li></ul> <p>Co-chairs, Participants</p> |
| <b>11h45 – 12h30</b> | <p><b>Decisions and Actions</b></p> <p>Co-chairs</p>   |
| <b>12h30</b>         | <b>Close</b>   |