Annex 2

Workshop Programme

Monday 20 June 2011

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker(s)</th>
<th>Title</th>
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<tbody>
<tr>
<td>13:30</td>
<td>Erland Källén</td>
<td>Opening address</td>
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<tr>
<td>13:45</td>
<td>Tim Palmer (ECMWF)</td>
<td>Overview</td>
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<tr>
<td>1415</td>
<td>Christian Jakob (Monash)</td>
<td>Representing convection in models - How stochastic does it need to be?</td>
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<tr>
<td>1445</td>
<td>John Thuburn (Univ Exeter)</td>
<td>Energy and enstrophy cascades in numerical models</td>
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<tr>
<td>1515</td>
<td>Coffee and poster viewing</td>
<td>Restaurant and lobby</td>
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<tr>
<td>1545</td>
<td>Robert Pincus (U. Colorado)</td>
<td>Radiation fast physics with slow consequences in an uncertain atmosphere</td>
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<tr>
<td>1615</td>
<td>Axel Seifert (DWD)</td>
<td>Uncertainty and complexity in cloud microphysics</td>
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<tr>
<td>1645</td>
<td>Cecile Penland (NOAA)</td>
<td>Some numerical issues in stochastic integration</td>
</tr>
<tr>
<td>1715</td>
<td>Cocktails and poster viewing</td>
<td>Restaurant and lobby</td>
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<tr>
<td>0915</td>
<td>Laure Zanna (Oxford)</td>
<td>Dealing with ocean model uncertainty in climate prediction</td>
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<tr>
<td>0945</td>
<td>Hannah Cloke (King’s College)</td>
<td>Uncertainty in representation of land surface processes: soil hydrology and river runoff</td>
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<tr>
<td>1015</td>
<td>Andy Majda (Courant)</td>
<td>Improving complex models, stochastic parameterization, and information theory</td>
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<tr>
<td>1045</td>
<td>Coffee and poster viewing</td>
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<tr>
<td>1115</td>
<td>Frank Kwasniok (Univ Exeter)</td>
<td>Data-based stochastic subgrid-scale modelling</td>
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<tr>
<td>1145</td>
<td>Andreas Weigel (MeteoSwiss)</td>
<td>Multimodels on seasonal to multi-decadal time-scales: Potential and limitations</td>
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<tr>
<td>1215</td>
<td>Peter Houtekamer (Canadian Met)</td>
<td>The use of multiple parameterizations in ensembles</td>
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<td>1245</td>
<td>Lunch</td>
<td>Restaurant</td>
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<tr>
<td>1400</td>
<td>Laurent Descamps (Météo France)</td>
<td>Representing model uncertainty using multiparametrisation methods</td>
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<tr>
<td>1430</td>
<td>James Murphy (Met Office)</td>
<td>Assessing perturbed parameter ensembles as a tool for sampling model uncertainties and making climate projections</td>
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<tr>
<td>1500</td>
<td>Jonty Rougier (Bristol)</td>
<td>Inference from perturbed parameter ensemble experiments</td>
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<tr>
<td>1600</td>
<td>Martin Leutbecher (ECMWF)</td>
<td>Stochastic tendency perturbations for NWP</td>
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ECMWF Workshop on Model Uncertainty, 20 – 24 June 2011

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1630 Glenn Shutts (Met Office) ensembles Tracking down the origin of NWP model uncertainty: coarse-graining studies and the efficacy of various stochastic parametrizations

Wednesday 22 June 2011

0915 Bob Plant (Reading Uni) Stochastic parameterization: uncertainties from convection
0945 Judith Berner (NCAR) Comparison of model-uncertainty schemes across a range of scales
1015 Tim Del Sole (COLA) Data assimilation using models with stochastic parameterizations
1045 Coffee and poster viewing Restaurant and lobby
1115 Lisa Bengtsson-Sedlar (SMHI) Representing deep convective organization in a high resolution NWP LAM model using cellular automata

7. Superparametrisation
1145 Dave Randall (CSU) Variability Across Time Scales in a Super-Parameterized GCM

8. Postprocessing Issues
1215 Tom Hamill (NOAA) Addressing model uncertainty through statistical post-processing
1245 Lunch Restaurant

9. Representation of Model Uncertainty in Data Assimilation
1400 Yannick Tremolet (ECMWF) Estimating model error in 4D-Var
1430 Massimo Bonavita (ECMWF) Model uncertainty in ensemble data assimilation
1500 Jeff Whitaker (NOAA) Evaluating methods for representing model error using ensemble data assimilation

10. Verification of methods for representing uncertainty
1530 Coffee and poster viewing Restaurant and lobby
1600 Antje Weisheimer (ECMWF) Assessing representations of model uncertainty in seasonal forecast ensembles
1630 Istvan Szunyogh (Texas A&M) Local diagnostics to measure the efficiency of the ensemble in representing the error space
1700 Working Group Organisation and Discussions
1800 Informal dinner at ECMWF restaurant for invited participants

Thursday 23 June 2011

09.30 Working Group Discussions
12.30 Lunch
13.30 Working Group Discussions

Friday 24 June 2011

09.30 Plenary Session
12.00 Closure