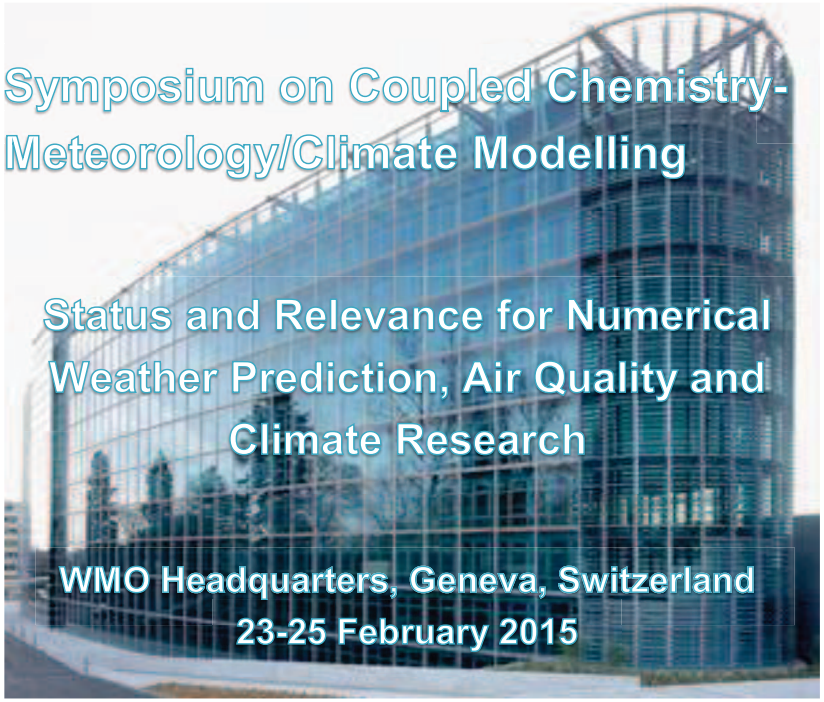

Agenda

Monday 23/2/2015

8:30 **Registration opens**

8:50 **Symposium Opening**

Welcome from WMO, Deon Terblanche, Research Director

Session 1: Coupled chemistry-meteorology systems

Greg Carmichael (chair), Georg Grell (rapporteur)

9:10 **Alexander Baklanov**

Online coupled meteorology-chemistry modelling: review of current status and further opportunities

9:30 **Rohit Mathur**

How Well Can Coupled Models Simulate Multi-Decadal Trends in Tropospheric Aerosol Burden and its Radiative Effects across the Northern Hemisphere?

9:50 **Johannes Flemming**

Atmospheric Chemistry in ECMWF's Integrated Forecasting System.

10:05 **Eigil Kaas**

Numerical treatment of the transport problem in on-coupled atmospheric models

10:20 **Astrid Manders-Groot**

Modelling the radiative impacts of aerosols: off-line versus on-line approach

10:35 **Coffee break**

Session 2: Key processes and interactions

Bernhard Vogel (chair), Paul Makar (rapporteur)

11:00 **Yang Zhang**

Online-Coupled WRF-CAM5 Modeling over East Asia: Multi-Year Evaluation, Model Improvement, and Aerosol Indirect Effects

11:20 **Renate Forkel**

The EuMetChem multi-model case studies on aerosol feedbacks

11:35 **George Kallos**

Links and Feedbacks between Aerosol, Radiation, Cloud and Precipitation in the RAMS/ICLAMS Modelling System

11:50 **Svitlana Krakovska**

Towards improving parameterizations of mixed stratus cloud/fog formation in climate models and NWP

12:05 **Ralph Lehmann**

Determination of pathways in chemical reaction systems: an algorithm and applications to atmospheric chemistry

12:20 **Lunch break**

Session 2 continued

Renate Forkel (chair), Yang Zhang (rapporteur)

13:20 **Paul Makar**

Coupled Chemistry-Meteorology: Simulations at 2.5km Resolution

13:35 **Slobodan Nickovic**

Modelling of cold cloud formation due to atmospheric dust

13:50 **Orestis Speyer**

Investigation of direct radiative effects of aerosols due to changes in domestic heating fuel

14:05 **Georgiy Stenchikov**

Radiative and Meteorological Effects of Air Pollution and Dust over the Arabian Peninsula

Session 3: CCMMs for climate studies

Annica Ekman (chair), Michel Rixen (rapporteur)

14:20 **Michaela Hegglin**

The IGAC/SPARC Chemistry-Climate Model Initiative

14:40 **Øystein Hov**

Climate-chemistry interactions in an Earth System Model (NorESM)

14:55 **Coffee break and Poster Session with guided poster show**

Session 3 continued

Øystein Hov (chair), Michaela Hegglin (rapporteur)

16:30 **Thierno Doumbia**

Evolution of the Chemical Composition of the Atmosphere over the Past Three Decades: Comparisons of Chemistry-Climate Model Simulations with Observations

16:45 **Peter Colarco**

The NASA Goddard Earth Observing Chemistry-Climate Model and its application to aerosol-chemistry-climate interactions

17:00 **Pierre Nabat**

Aerosol modeling in a regional climate models: prognostic scheme or monthly climatologies, which consequences on regional climate?

17:15 **Prabir Patra**

Diagnosing inter-hemispheric OH distribution and transport in chemistry and transport models

17:30 **Anna Possner / Ulrike Lohmann**

Uncertainties in climate prediction: The influence of aerosol particles on clouds and climate

17:50 **END Presentations Day 1**

18:00 **Icebreaker Reception**

Tuesday 24/2/2015

Session 4: CCMMs for air quality and atmospheric composition

Rohit Mathur (chair), Nicolas Moussiopoulos (rapporteur)

9:00 **Stefano Galmarini**

Ensemble summary of the AQMEII Phase 2 model evaluation activities and the role and relevance of international model evaluation studies

9:20 **Giovanna Finzi**

Impact of pollutant emission reductions on summertime aerosol feedbacks: a case study over the Po Valley

9:35 **Michael Prather**

Evaluation of Present and Future Surface Ozone as Simulated by Chemistry-Climate Models

9:50 **S.T. Rao**

Discussion on inherent uncertainties in atmospheric modeling: altering the initial state

10:05 **Fiona Tummon**

Diagnosing changes in European tropospheric ozone over the past 50 years

10:20 **Ashraf Zakey**

Climate change impacts on surface ozone: Using the Online integrated climate-chemistry model (EnvClimA)

10:35 **Coffee break**

Session 5: CCMMs for NWP and meteorology

Alexander Baklanov (chair), Sylvain Joffre (rapporteur)

11:00 **Saulo Freitas**

Evaluating the Impact of Aerosols on Numerical Weather Prediction

11:20 **Heike Vogel**

Impact of mineral dust particles on the forecast of temperature and photovoltaic power

11:35 **Georg Grell**

Evaluating the impact of aerosols on numerical weather prediction: The use of an aerosol aware convective parameterization

11:50 **Samuel Rémy**

Evaluating aerosol impacts on Numerical Weather Prediction in an extreme dust event

12:05	**Oriol Jorba** Direct radiative effect of mineral dust on meteorology for dust outbreak events over the Mediterranean in summer 2012
12:20	**Lunch break**
	Session 4 continued **Saulo Freitas (chair), Nick Savage (rapporteur)**
13:20	**Bernhard Vogel** Dynamic aerosol in numerical weather forecast: nice to have or necessary?
13:40	**Laura Rontu / Emily Gleeson** Aerosols in the HARMONIE NWP model - aerosol radiative effects and further perspectives
13:55	**Bent Sass** Integrated Meteorology-Aerosol-Chemistry Modelling for NWP Applications: Present Status, Future Steps and Challenges
14:10	**Manu Anna Thomas** Development of prognostic aerosol-cloud interactions in a chemistry transport model coupled to a regional climate model
14:25	**Gregory Thompson** A study showing impacts of aerosols on clouds and precipitation associated with a large winter cyclone
14:40	**Velle Toll** Aerosol direct radiative effect during summer 2010 wildfires in Russia simulated with NWP model HARMONIE
14:55	**Coffee break and Poster Session with guided poster show**

Session 6: Model evaluation

Heinke Schlünzen (chair), Stefano Galmarini (rapporteur)

16:30	**Dominik Brunner** Fit for purpose? Application and evaluation of coupled chemistry and meteorology models
16:50	**Ashok Luhar** Evaluation of tropospheric chemistry in the Australian ACCESS-UKCA climate model
17:05	**Sara Basart** Extensive Comparison between a set of European Dust Regional Models and Observations in the Western Mediterranean for the Summer 2012 Pre-ChArMEx/TRAQA Campaign

17:20	**Mark Jacobson** Coupling wind and solar energy systems with feedback to a coupled air pollution, weather, climate, and ocean model, GATOR-GCMOM
17:40	**END Presentations Day 2**
19:30	**Conference Dinner**
21:00	**End Dinner**

Wednesday 25/2/2015

Session 7: Data assimilation and data requirements

Christian Seigneur (chair), Johannes Flemming (rapporteur)

9:00	**Greg Carmichael** Improving Air Quality (and weather) Predictions via Application of New Data Assimilation Techniques Applicable to Coupled Models
9:20	**Arlindo da Silva** The GEOS-5 Aerosol Forecasting and Data Assimilation System
9:35	**Sushil Kumar Dash** Impacts of Aerosols and Changing Climate on Indian Summer Monsoon and Extreme Events
9:50	**Coffee break**
10:20	**Plenary discussion on outcome** **Moderators: Øystein Hov, Greg Carmichael, Alexander Baklanov** **Short reports by chairs or/and raporters for each topics** - Summary of papers and posters of the session, - Main challenges and gaps in the field, - Answers on the relevant key questions (see in the 2nd announce), - Recommendations for future research.
12:10	**End of the CCMM Symposium**
12:10	**Lunch break**
13:00	**COST EuMetChem MC Meeting (COST internal only)**
16:10	Farewell
16:20	**End COST Action**

Poster Sessions

All posters are displayed during all days.
Guided poster tour at Monday and Tuesday

Monday 23/2/2015 – 15:15-16:15

Session 1: Coupled chemistry-meteorology systems

Greg Carmichael (chair), Georg Grell (rapporteur)

#1 **Alexander Mahura**

Science-Education: Online Integrated Modelling of Aerosol-Chemistry-Meteorology Effects using Enviro-HIRLAM

Session 2: Key processes and interactions

Bernhard Vogel (chair), Paul Makar (rapporteur)

#2 **Roman Nuterman**

Improvement of Enviro-HIRLAM weather forecasting through inclusion of cloud-aerosol interactions

#3 **Daniel Rieger**

Feedback between Natural Aerosol and Cloud Microphysics within ICON-ART

#4 **Roland Ruhnke**

Investigating convective tropospheric transport processes and large scale stratospheric dynamics with ICON-ART

Session 3: CCMMs for climate studies

Annica Ekman (chair), Michael Gauss (rapporteur)

#5 **Annica Ekman**

Impact of European aerosol emission reductions on Arctic climate

#6 **Markus Schultze**

Impacts of different aerosol climatologies on the European climate during the last decades

#7 **Amir Yadghar**

An integrated GIS-based air quality and climate change modeling methodology

#8 **Roberto San Jose**

Hight resolution urban health impacts of global climate scenarios: DECUMANUS project

Session 5: CCMMs for NWP and meteorology

Saulo Freitas (chair), Sylvain Joffre (rapporteur)

#9 **Chinmay Kumar Jena**

Changes on monsoon precipitation over South Asia due to anthropogenic aerosols: A case study using WRF-Chem model

#10 **Alexander Kirsanov**

Quasi-operational use of the COSMO-Ru7-ART Chemical-Transport Model at the Hydrometcenter of Russia

#11 **Alexander Mahura**

Enviro-HIRLAM Modelling of Regional and Urban Meteorology and Chemistry Patterns for Summer 2009 Paris Campaign

#12 **Julia Palamarchuk**

Aerosol effects on the physical weather in the Harmonie model

#13 **Emily Gleeson**

Aerosols in HARMONIE Radiative Effects and further Perspectives

Session 6: Model evaluation

Heinke Schlünzen (chair), Stefano Galmarini (rapporteur)

#14 **Marina Astitha**

Discussion on inherent uncertainties in atmospheric modeling: altering the initial state

#15 **Sara Basart**

The SDS-WAS North Africa-Middle East-Europe Regional Node activities: Different approaches to dust forecast evaluation

#16 **Virginie Buchard**

Evaluation of surface PM 2.5 in the NASA MERRA Aerosol Reanalysis over the United States

#17 **Jacek Kaminski**

New air quality observations from Sentinel, GEMS and TEMPO missions

#18 **Werner Thomas**

European ceilometer and lidar networks - aerosol retrieval, transport phenomena and future applications

Tuesday 24/2/2015 – 15:15-16:15

Session 4: CCMMs for air quality and atmospheric composition

Rohit Mathur (chair), Nicolas Moussiopoulos (rapporteur)

#19 **Serdar Bagis**

Modelling of Air Pollution Distribution with Chimere And WRF-Chem: A Case Study for Istanbul

#20 **Pelin Cansu Cavus**

Air Pollution Modelling Studies for Metropolitan Area of Istanbul

#21 **Deniz Hazel Diren**

A Case Study for Urban Effects on Meteorological Parameters by Enviro-HIRLAM

#22 **Fonseca Hernandez**

An air quality forecasting system based on WRF-Chem over Cuba: preliminary results.

#23 **Goran Gasparac**

Air quality modeling during stable atmospheric conditions

#24 **Sachin Ghude**

Influence of springtime biomass burning in South Asia on regional Air Quality: A regional model based study

#25 **I Yayoi Inomata**

Temporal variation of particulate polycyclic aromatic hydrocarbon concentrations in Northeast Asia

Session 4 cntd. **Jose M Baldasano (chair), Ana Isabel Miranda (rapporteur)**

#26 **Alexander Kurganskiy**

Birch pollen modeling for Denmark: spring 2006 episode.

#27 **Silvana Maldaner**

Simulating the contaminants dispersion in a shear-dominated stable boundary layer

#28 **Nicolas Moussiopoulos**

Using regional online coupled model results for estimating concentration increments in urban areas by means of a statistical approach

#29 **Varun Sheel**

Distribution of trace gases over South Asia: role of CCMs

#30 **Cardoso da Silveira**

Modeling the concentration of contaminants in stable wind meandering situation employing the advection-diffusion equation and asymptotic diffusivities

#31 **Huseyin Toros**

A Case Study of Online Enviro-HIRLAM and WRF-CHEM Model using global

emission data during an air pollution episode in Istanbul

#32 **Prodromos Zanis**

Evaluation of the dust scheme in the regional climate model RegCM4 using the dust satellite product LIVAS over Europe and North Africa

Session 7: Data assimilation and data requirements

Christian Seigneur (chair), Johannes Flemming (rapporteur)

#33 **Kuvar Satya Singh**

Impact of radiance data assimilation for prediction of a land-falling Bay of Bengal cyclone using mesoscale model

#34 **Prodromos Zanis**

Evaluation of MACCII near surface ozone reanalysis over Europe

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Rapporteurs / Brain storming Teams for each of the seven Sessions/Topics
(more persons are welcome to join):

1. Coupled chemistry-meteorology systems:

Greg Carmichael (chair), Georg Grell, Peter Suppan, Alexander Baklanov (rapporteurs)

2. Key processes:

Bernhard Vogel (chair), Paul Makar, Renate Forkel, Yang Zhang (rapporteurs),

3. CCMMs for climate studies:

Øystein Hov (chair), Michel Rixen, Michael Gauss, Annica Ekman, Michaela Hegglin (rapporteurs)

4. CCMMs for air quality and atmospheric composition:

Rohit Mathur (chair), Veronique Bouchet, Nicolas Moussiopoulos, Jose M Baldasano, Ana Isabel Miranda (rapporteurs)

5. CCMMs for NWP and meteorology:

Saulo Freitas (chair), Sylvain Joffre, Vincent-Henri Peuch, Nick Savage (rapporteurs)

6. Model evaluation:

Heinke Schlünzen (chair), Dominik Brunner, S.T. Rao, Stefano Galmarini, Christian Hogrefe (rapporteurs)

7. Data assimilation:

Christian Seigneur (chair), Johannes Flemming (rapporteur).