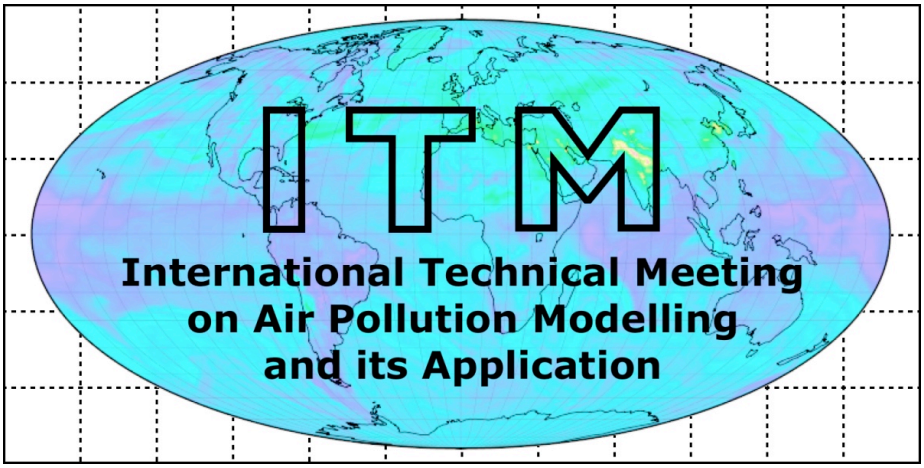

ITM 2013

August 26 – 30

Miami, Florida, USA

33rd International Technical Meeting on Air Pollution Modelling and its Application

August 26 – 30, 2013 – Miami, Florida, USA

	Monday Aug 26	Tuesday Aug 27	Wednesday Aug 28	Thursday Aug 29	Friday Aug 30
9:00	Opening Session	5: Aerosols in the Atmosphere	2: Regional & Intercontinental Modelling	2: Regional & Intercontinental Modelling	4: Model Assessment & Verification
9:20					
9:40	7: AQ & Human/Environmental Health				
10:00				1: Local & Urban-scale modelling	
10:20					
10:40	Coffee	Coffee	Coffee	Coffee	Coffee
11:10	7: AQ & Human/Environmental Health	5: Aerosols in the Atmosphere	2: Regional & Intercontinental Modelling	1: Local & Urban-scale modelling	3: Data Assimilation & AQ Forecasting
11:30					
11:50					
12:10					
12:30	6: AQ & Climate Change	2: Regional & Intercontinental Modelling	Invited Talk	4: Model Assessment & Verification	
12:50					
13:10	Lunch Break	Lunch Break	Lunch Break	Lunch Break	Lunch Break
14:40	6: AQ & Climate Change	2: Regional & Intercontinental Modelling	Excursion	Invited Talk	3: Data Assimilation & AQ Forecasting
15:00					
15:20				4: Model Assessment & Verification	33rd ITM Adjourns
15:40		Invited Talk			
16:00	5: Aerosols in the Atmosphere				
16:20	Coffee	Coffee		Coffee	
16:50	5: Aerosols in the Atmosphere	2: Regional & Intercontinental Modelling		4: Model Assessment & Verification	
17:10					
17:30	Poster Presentations	Poster Presentations			
17:50				Break	
18:10					
18:30	Break	Break			
19:00	Poster Viewing & Reception	Poster Viewing & Reception		Social Dinner	

PROGRAM

Monday, August 26

08:30 – 09:30 Registration

09:00 – 09:40 Opening Session

Morning Sessions Chairperson Silvia Trini Castelli

Rapporteur Christoph Knote

SESSION 1 AIR QUALITY EFFECTS ON HUMAN & ENVIRONMENTAL HEALTH

09:40 1.01 Assessment of environmental and human health impacts of major industrial emission sources in the United Kingdom in 2020

Charles Chemel, Bernard E. A. Fisher, Xavier V. Francis, Nicholas Good, Xin Kong, Ranjeet S. Sokhi, William J. Collins, Gerd A. Folberth

10:00 1.02 Development of model-based air pollution exposure metrics for use in epidemiologic studies

Vlad Isakov, Michelle Snyder, David Heist, Steven Perry, Janet Burke, Sarav Arunachalam, Stuart Batterman, Rajiv Ganguly

10:20 1.03 Improved spatiotemporal air pollutant mixtures characterization for health studies

Heather A. Holmes, Xinxin Zhai, Jeremiah Redman, Kyle Digby, Cesunica Ivey, Sivaraman Balachandran, Sheila A Sororian, Mariel Friberg, Wenxian Zhang, Marissa L. Maier, Yongtao Hu, Armistead G. Russell, James A. Mulholland, Howard H. Chang

10:40 – 11:10 Coffee

11:10 1.04 Advances in coupled air quality, farm management and biogeochemistry to address bi-directional ammonia flux

Ellen J. Cooter

11:30 1.05 A temporal NOx emissions trading system: case study of US power plants

S. Morteza Mesbah, Amir Hakami, Stephan Schott

11:50 1.06 Source attribution of attainment and exposure-based ozone metrics in North America

Amanda Pappin, Amir Hakami

12:10 1.07 Application of a gas/aerosol dynamics model to some environmental problems

Artash Aloyan, Alexander Yermakov, Vardan Arutyunyan

SESSION 2 INTERACTIONS BETWEEN AIR QUALITY AND CLIMATE CHANGE

12:30 2.01 Studying aerosol-cloud-climate interactions over East Asia using WRF/Chem

Yang Zhang, Xin Zhang, Changjie Cai, Kai Wang, Litao Wang

12:50 2.02 Online integrated meteorology-chemistry models: needs and benefits for Numerical Weather Prediction, air quality and climate communities (European experience)

Alexander Baklanov, Heinke Schlünzen, Peter Suppan, Jose Baldasano, Dominik Brunner, Michael Gauss, Alberto Maurizi, Christian Seigneur, Xin Kong, Oriol Jorba, Sylvain Joffre, Nicolas Moussiopoulos, the COST ES1004 EuMetChem team

13:10 – 14:40 Lunch

Afternoon Sessions Chairperson Nadine Chaumerliac

Rapporteur Heather Holmes

SESSION 2 INTERACTIONS BETWEEN AQ AND CLIMATE CHANGE (continued)

14:40 2.03 Investigation of trends in aerosol direct radiative effects over North America using a coupled meteorology-chemistry mode

Rohit Mathur, Jonathan Pleim, David Wong, Christian Hogrefe, Chao Wei, Jia Xing, Chuen-Meei Gan, Francis Binkowski

15:00 2.04 Urban NOx control as a climate change adaptation strategy

Amir Hakami, Shunliu Zhao, Amanda Pappin, Morteza Mesbah

15:20 2.05 Changes in U.S. regional-scale air quality at 2030 simulated using RCP 6.0

Chris Nolte

15:40 2.06 Future year air quality change due to growth in aircraft emissions and changes in climate

Saravanan Arunachalam, Matthew Woody, Jared H. Bowden, Bok Haeng Baek, Mohammad Omary

SESSION 3 AEROSOLS IN THE ATMOSPHERE

16:00 3.01 The use of a Non Negative Matrix Factorization method combined to PM2.5 chemical data for source apportionment in different environments

Adib Kfoury, Frederic Ledoux, Abdelhakim Limem, Gilles Delmaire, Gilles Roussel, Dominique Courcot

16:20 – 16:50 Coffee

16:50 3.02 On the interplay between upper and ground levels dynamics and chemistry in determining the surface aerosol budget

Gabriele Curci, Luca Ferrero, Paolo Tuccella, Federico Angelini, Francesca Barnaba, Ezio Bolzacchini, Maria Cristina Facchini, Gian Paolo Gobbi, Tony Christian Landi, Grazia Perrone, Giorgia Sangiorgi, Paolo Stocchi

17:10 3.03 Modeling of aerosol indirect effects with WRF/Chem over Europe

Paolo Tuccella, Gabriele Curci, Suzanne Crumeyrolle, Guido Visconti

17:30 – 18:30 **Poster presentations**
Chairperson: Rohit Mathur

19:00 Poster viewing and reception

Tuesday, August 27

Morning Sessions Chairperson Oriol Jorba

Rapporteur Malte Uphoff

SESSION 3 AEROSOLS IN THE ATMOSPHERE (continued)

09:00 3.04 The influence of cloud chemical processes on the formation of secondary particulate matter

Ralf Wolke, Roland Schrödner, Andreas Tilgner, Hartmut Herrmann

09:20 3.05 An improved volatility basis set for modeling organic aerosol in both CAMx and CMAQ

Bonyoung Koo, Eladio Knipping, Greg Yarwood

09:40 3.06 Issues related to on/offline meteorological and atmospheric chemistry model coupling

Jonilda Kushta, Marina Asitha, Stavros Solomos, George Kallos

10:00 3.07 Increases in wintertime oxidation capacity counteract the success of emission reduction measures in Europe with respect to secondary inorganic aerosols

Dominik Brunner, Christoph Knote, Lea Giordano, Christoph Hueglin

10:20 3.08 Investigating the contribution of biogenic emissions to the formation of secondary pollutants in Portugal

Oxana Tchepel, Joana Ferreira, Helena Martins, Carlos Silveira, Ana Isabel Miranda, Carlos Borrego

10:40 – 11:10 Coffee

11:10 3.09 Modelling aerosol-cloud-meteorology interaction: a case study with a fully coupled air quality model (GEM-MACH)

Wanmin Gong, Paul A. Makar, Junhua Zhang, Jason Milbrandt, Sylvie Gravel

11:30 3.10 Evaluation of cloud chemistry mechanism towards laboratory experiments

Y. Long, L. Deguillaumel, N. Chaumerliac

11:50 3.11 Effects of surf zone sea-spray particles on aerosol concentration in coastal area

Gilles Tedeschi, Jacques Piazzola

12:10 3.12 Novel pathways to form secondary organic aerosols - glyoxal SOA in WRF/Chem

Christoph Knote

SESSION 4 REGIONAL AND INTERCONTINENTAL MODELLING

12:30 4.01 WRF-Chem model sensitivity analysis to chemical mechanism choice

Alessandra Balzarini, Luka Honzak, Guido Pirovano, Giuseppe Maurizio Riva, Rahela Zabkar

12:50 4.02 Modelling the impact of energy transitions on air quality and source receptor relations

Carlijn Hendriks, Jeroen Kuenen, Richard Kranenburg, Martijn Schaap, Peter Builtjes

13:10 – 14:40 Lunch

Afternoon Sessions Chairperson Christian Hogrefe

Rapporteur Amanda Pappin

SESSION 4 REGIONAL AND INTERCONTINENTAL MODELLING (continued)

14:40 4.03 Impact of mercury chemistry on regional concentration and deposition patterns

Johannes Bieser, Volker Matthias, Armin Aulinger, Beate Geyer, Ian Hedgecock, Francesco DeSimone, Christoph Gencarelli, Oleg Travnikov

15:00 4.04 A multiscale modeling study to assess impacts of full-flight aircraft emissions on upper troposphere and surface air quality

Lakshmi Pradeepa Vennam, Saravanan Arunachalam, Bok Haeng Baek, Mohammad Omary, Francis Binkowski, Seth Olsen, Rohit Mathur, William Vizuete, Gregg Fleming

15:20 4.05 Relevance of photolysis frequencies calculation aspects to the ozone concentration simulation

Malte Uphoff, David Grawe, Jens Ole Ross, Katharina Heinke Schlünzen

15:40 – 16:20 Invited Talk

Use of air quality modeling results in health effects research

Armistead Russell, Heather Holmes, Mariel Friberg, Cesunica Ivey, Yongtao Hu, Siv Balachandran, James Mulholland, Paige Tolbert, Jeremy Sarnat, Stefanie Sarnat, Matt Strickland, Howard Chang, Yang Liu

16:20 – 16:50 Coffee

16:50 4.06 Air pollution in China in January 2013

Volker Matthias, Armin Aulinger, Johannes Bieser, Beate Geyer, Markus Quante

17:10 Impact on Ontario's air quality due to changes in North American
4.07 emission from 2005 to 2020

Andrei Chtcherbakov, Robert Bloxam, Sunny Wong, Yvonne Hall

17:30 – 18:30 **Poster presentations**
Chairperson: Rohit Mathur

19:00 Poster viewing and reception

Wednesday, August 28

Morning Sessions Chairperson Sven-Erik Gryning

Rapporteur Lakshmi Pradeepa Vennam

SESSION 4 REGIONAL AND INTERCONTINENTAL MODELLING (continued)

09:00 4.08 Modelling the deposition and concentration of Heavy Metals in the UK

Anthony Dore, Stephen Hallsworth, Małgorzata Werner, Maciej Kryza, Eiko Nemitz, Heath Malcolm, Stefan Reis, David Fowler

09:20 4.09 A process analysis of the impact of air-quality/weather feedbacks using GEM-MACH

Paul Andrew Makar, Wanmin Gong, Junhua Zhang, Jason Milbrandt, Sylvie Gravel, Balbir Pabla, Philip Cheung

09:40 4.10 Analog-based postprocessing methods for air quality forecasting

Luca Delle Monache, Irina Djalalova, James Wilczak

10:00 4.11 Comparing different modeling approaches in obtaining regional scale concentration maps

Bino Maiheu, Nele Veldeman, Peter Viaene, Koen De Ridder, Dirk Lauwaet, Felix Deutsch, Stijn Janssen, Clemens Mensink

10:20 4.12 Impact of RACM2, halogen chemistry, and enhanced ozone deposition velocity on ozone predictions

Golam Sarwar, Jia Xing, Godowitch Godowitch, Rohit Mathur

10:40 – 11:10 Coffee

11:10 4.13 A global wildfire emission and atmospheric composition: refinement of the Integrated System for wild-land fires IS4FIRES

Joana Soares, Mikhail Sofiev

11:30 4.14 The regional LOTOS-EUROS model on tour

Renske Timmermans, Carlijn Hendriks, Richard Kranenburg, Arjo Segers, Roy Wichink Kruit

11:50 4.15 The incorporation of the national emission inventory into the Emission Database for Global Atmospheric Research-Hemispheric Transport of Air Pollutants (EDGAR-HTAP) version 2

George Pouliot, Terry Keating, Greet Maenhout, Charles Chang, James Beidler, Ryan Cleary

12:10 4.16 Impact of the vertical and horizontal resolution on chemistry transport modelling

Bertrand Bessagnet, Augustin Colette, Etienne Terrenoire, Laurent Menut, Philippe Thunis

12:30 – 13:10 **Invited Talk**

Air Quality effects on human health

J. Brandt, J. D. Silver, J. H. Christensen, M. S. Andersen, J. H. Bønløkke, T. Sigsgaard, C. Geels, K. M. Hansen, E. Kaas, L. M. Frohn

13:10 – 14:40 Lunch

14:40 Excursion. Locations TBA.

Thursday, August 29

Morning Sessions Chairperson Heinke Schlunzen

Rapporteur Adib Kfoury

SESSION 4 REGIONAL AND INTERCONTINENTAL MODELLING (continued)

09:00 4.17 A model study on the effects of emission reductions on European air quality between 1990 and 2020

Sebnem Aksoyoglu, André S. H. Prévôt

09:20 4.18 Analysis and modelling of ambient air toxics pollutants in Canada with Environment Canada AURAMS model

Jack Chen, Craig Stroud, Calin Zaganescu, Gilles Morneau, Daniel Wang

09:40 4.19 Investigating the coherence between a global and a limited area model for dust particle production and distribution in N. Africa

Marina Astitha, Christos Spyrou, Serafim Kontos, George Kallos, Jos Lelieveld

THURSDAY Aug 29

SESSION 5 LOCAL AND URBAN SCALE MODELLING

10:00 5.01 Assessment of the effect of multiscale interactions on the atmospheric flow and the dispersion of air pollution in the city of Paris

Photios Barmpas, George Tsegas, Ioannis Douros, Nicolas Moussiopoulos, Vasilios Akylas

10:20 5.02 PAHs modelling over urban area of Rome: integration of models results with experimental data

Claudio Gariazzo, Camillo Silibello, Sandro Finardi, Paola Radice, Alessio D'Allura, Monica Gherardi, Angelo Cecinato

10:40 – 11:10 Coffee

11:10 5.03 Improvements of the chemical reactivity module in CERES CBRN software and sensitivity study for various complex cases

Luc Patryl, Yoann Long, Laurent Deguillaume, Patrick Armand, Nadine Chaumerliac

11:30 5.04 Modelling the effects of urban morphology, traffic and pedestrian dynamics on students exposure to air pollution

Jorge Humberto Amorim, Joana Valente, Cláudia Pimentel, Pedro Cascão, Vera Rodrigues, Ana Isabel Miranda, Carlos Borrego

11:50 5.05 LES of advective and turbulent passive scalar fluxes in a street crossing

Vladimir Fuka, Libor Kukačka, Josef Brechler

12:10 5.06 Two-phase accidental dense gas releases simulations with the Lagrangian particle model MicroSpray

Luca Mortarini, Gianni Tinarelli, Silvia Trini Castelli, Giuseppe Carlino, Domenico Anfossi

SESSION 6 MODEL ASSESSMENT AND VERIFICATION

12:30 6.01 Dynamic evaluation of the CMAQv5.0 modeling system: Assessing the model's ability to simulate ozone changes due to NOx emission reductions

Kristen Madsen Foley

12:50 6.02 Evaluation of a chemical data assimilation system

Jeremy David Silver, Jesper H. Christensen, Michael Kahnert, Lennart Robertson, Jørgen Brandt

13:10 – 14:40 Lunch

Afternoon Sessions Chairperson George Kallos

Rapporteur Johannes Bieser

14:40 – 15:20 **Invited Talk**

A 40-year history of a simple urban dispersion model and its evaluation

Steven Hanna

SESSION 6 MODEL ASSESSMENT AND VERIFICATION (continued)

15:20 6.03 Resolving and quantifying ozone contributions from boundary conditions within regional models

Greg Yarwood, Chris Emery, Kirk Baker, Pat Dolwick

15:40 6.04 *E pluribus unum*: KZ filters and ensemble air quality modeling

Stefano Galmarini, Ioannis Kioutsioukis, Efisio Solazzo

16:00 6.05 Air quality model evaluation using Gaussian Process Modelling and Empirical Orthogonal Function Decomposition

Tianji Shi, Douw G. Steyn, William J. Welch

16:20 – 16:50 Coffee

16:50 AQMEII Phase 2 – Overview and WRF/CMAQ Application over North
6.06 America

Christian Hogrefe, Stefano Galmarini, Shawn Roselle, Rohit Mathur

17:10 Modelling UK Air Quality for AQMEII2 with the Online Forecast
6.07 Model AQUM

Lucy Davis, Nick Savage, Paul Agnew, Carlos Ordóñez, Marie Tilbee

17:30 Model inter-comparison study between NMMB/BSC-CTM and
6.08 Enviro-HIRLAM on-line systems contributing to the AQMEII-Phase2 initiative

Alba Badia, Oriol Jorba, Roman Nuterman, Alexander Baklanov, Jose María Baldasano

19:00 Social dinner at **LOCATION TBA**
Address TBA

Morning Sessions Chairperson Tony Dore

Rapporteur Vladimir Fuka

SESSION 6 MODEL ASSESSMENT AND VERIFICATION (continued)

09:00 6.09 Can we explain the observed decrease in secondary inorganic aerosol and its precursors between 1990 and 2009 over Europe using LOTOS-EUROS?

Sabine Banzhaf, Martijn Schaap, Richard Kranenburg, Astrid Manders, Arjo Segers, Antoon Visschedijk, Hugo Denier van der Gon, Jeroen Kuenen, Carlijn Hendriks, Erik van Meijgaard, Bert van Ulft, Peter Builtjes

09:20 6.10 Application and evaluation of high-resolution WRF-CMAQ with simple urban parameterization

Jonathan Pleim, Robert Gilliam, David Wong, Wyat Appel, George Pouliot, Limei Ran

09:40 6.11 Typical model performances of meteorology models

Heinke Schlünzen, Kristina Conrady

10:00 6.12 A one year evaluation of the CTM CHIMERE using SURFEX/TEB within the high resolution NWP models ALARO and ALADIN for Belgium

Andy Delcloo, Rafiq Hamdi, Alex Deckmyn, Hugo De Backer, Gilles Foret, Piet Termonia, Herman Van Langenhove

10:20 6.13 Application of performance indicators based on observation uncertainty to evaluate a Europe-wide model simulation at urban scale

Philippe Thunis, Bertrand Bessagnet, Etienne Terrenoire, Augustin Colette

10:40 – 11:10 Coffee

SESSION 7 DATA ASSIMILATION & AIR QUALITY FORECASTING (continued)

11:10 7.01 Assimilation of satellite oceanic and atmospheric products to improve emission forecasting

Daniel Tong, Pius Lee, Li Pan, Tianfeng Chai, Hyuncheol Kim, Menghua Wang, Shobha Kondragunta

11:30 7.02 Assimilation and forecasting fine aerosols over North America in summer 2012

Mariusz Pagowski, Georg Grell

11:50 7.03 Evaluating the vertical distribution of ozone and pollution events in air quality models using satellite data

Jessica L. Neu, Gregory B. Osterman, Annmarie Eldering

12:10 7.04 Building and Testing Atmospheric Chemistry Reanalysis Modeling System

Tianfeng Chai, Pius Lee, Li Pan, Hyun-Cheol Kim, Daniel Tong

12:30 7.05 Regional NOx emission estimates over India based on the WRF-Chem model and spatially-resolved OMI observations

Chinmay Kumar Jena

12:50 7.06 Intensive campaigns supported by air quality forecasting capability to identify chemical and atmospheric regimes susceptible to air quality standard violations

Pius Lee, Li Pan, Hyuncheol Kim, Daniel Tong

13:10 – 14:40 Lunch

Afternoon Sessions Chairperson Douw Steyn

Rapporteur Kristen Madsen Foley

SESSION 7 DATA ASSIMILATION & AIR QUALITY FORECASTING (continued)

14:40 7.07 Modeling of air pollution over the Ganges basin and North-West Bay of Bengal in the early post-monsoon season using the NASA GEOS-5 model

Pavel Kishcha, Arlindo M. da Silva, Boris Starobinets, Pinhas Alpert

15:00 7.08 The impact of a wildland fire on air pollution concentrations using WRF/chem/FIRE: An application over Murcia (Spain)

Roberto San José, Juan Luis Pérez, Rosa Maria González, Julia Pecci, Marino Palacios

15:20 33rd ITM Closing

POSTERS

Monday, August 26

SESSION 1 AIR QUALITY EFFECTS ON HUMAN & ENVIRONMENTAL HEALTH

P 1.01 Impact of historical air pollution emissions reductions on surface ozone during extreme heat

Christopher P. Loughner, Bryan Duncan, Melanie Follette-Cook, Jennifer Hains, Kenneth Pickering, Maria Tzortziou

P 1.02 CASTNET methodology for modeling dry and total deposition

Christopher M. Rogers, Thomas F. Lavery, Marcus O. Stewart, William R. Barnard, H. Kemp Howell

P 1.03 ACCEPTED; an Assessment of Changing Conditions, Environmental Policies, Time-activities, Exposure and Disease

Andy Delcloo, Camilla Andersson, Bertil Forsberg, Tim Nawrot, Myrto Valari

P 1.04 Evaluation of ACF (Activated Carbon Fibers) Fences in Reduction of Ambient NOx Concentration at Roadside

Toshihiro Kitada, Takao Kanzaki, Yoichi Ichikawa, Takaaki Shimohara, Masaaki Yoshikawa

P 1.05 Validation of the urban modelling in CERES CBRN by comparison with Lagrangian code for complex cases

Luc Patryl, Christophe Duchenne, Patrick Armand, Lionel Soulhac, Guillevic Lamaison

SESSION 2 INTERACTIONS BETWEEN AIR QUALITY AND CLIMATE CHANGE

P 2.01 Scenario study on oak pollen dispersion and pollen-mediated gene flow for current and mid-century climate

Soenke Gimmerthal, Heinke K. Schlünzen, Jutta Buschbom

P 2.02 Impact of urban land/surface parameterisation on air-quality modeled by a coupled regional climate-chemistry model

Peter Huszar, Tomas Halenka, Michal Belda, Katerina Zemankova

P 2.03 The ADMS plume chemistry model for NOx and amines

David John Carruthers, Martin David Seaton, Andrew Ellis, Catheryn Sara Price, Sarah Strickland

P 2.04 A Preliminary Study of Climate Change Effects on Air Quality in Taiwan

Jiun-Horng Tsai, Hsin-Chih Lai, Der-Ming Tsai

P 2.05 Air-quality and climate interaction over urbanized areas

Peter Huszar, Tomas Halenka, Michal Belda, Katerina Zemankova

SESSION 3 AEROSOLS IN THE ATMOSPHERE

P 3.01 Modeling seasonal changes in organic aerosol composition at the puy de Dôme (France)

Christelle Barbet, L. Deguillaume, Nadine Chaumerliac

P 3.02 Using WRF-CMAQ air quality modelling system to estimate BaP concentrations over Zaragoza (Spain)

Roberto San Jose, Juan Luis Perez, Marisol Callén, José Manuel Lopez, Ana Mastral

P 3.03 The POAEMM project: prediction of spatial and temporal variation of marine aerosols in coastal area

Gilles Tedeschi, Jacques Piazzola, Lionel Gardenal, V. Pourret, M. Martet

P 3.04 An integrated weather and sea-state forecasting system for the Arabian Peninsula (WASSF)

Jumaan Al Qahtani, Elyas Alaa, George Kallos, George Galanis, Sarantis Sofianos, Christina Mitsakou, Christos Spyrou, Christina Kalogeri, Nikolaos Bartsotas, John Athanaselis, Vassilios Vervatis, Stavros Solomos, Panagiotis Axaopoulos, Daniel W. Beard, Ioannis Alexiou

P 3.05 Effects of heat recovery from flue gas of power station on NOx dispersion

Sang Bum Kim, Shi Chang Wu, Young Min Jo, Young Koo Park

P 3.06 Modelling past and future changes in secondary inorganic aerosol concentrations in the UK

Riinu Ots, Anthony Dore, Y. Sim Tang, Christine F. Braban, Massimo Vieno, Mark Sutton

SESSION 4 REGIONAL AND INTERCONTINENTAL MODELLING

P 4.01 Effects of future ship emissions in the North Sea on air quality

Armin Aulinger, Volker Matthias, Johannes Bieser, Markus Quante

P 4.02 Temporally and spatially resolved air pollution in Georgia using fused ambient monitoring data and chemical transport model results

Sheila A. Sororian, Heather A. Holmes, Mariel Friberg, Cesunica Ivey, Yongtao Hu, James A. Mulholland, Armistead G. Russell, Matthew J. Strickland

P 4.03 Estimation of nitrogen deposition to the Baltic Sea based on the EMEP model results

Jerzy Bartnicki

P 4.04 Maritime sector emissions contribution to the particulate matter pollution in a Mediterranean city-port: A modeling approach

Anastasia Poupkou, Natalia Liora, Athanasios Karagiannidis, Theodoros Giannaros, Dimitrios Melas, Athanasios Argiriou

P 4.05 Application and evaluation of the high-resolution regional scale FRAME model for calculation of ammonia and ammonium air concentrations for Poland for years 2002-2008

Maciej Kryza, Anthony J Dore, Malgorzata Werner, Kinga Walaszek

P 4.06 Regional Transports of Atmospheric NOx and HNO3 over Cape Town

Babatunde J. Abiodun, Adefolake M. Ojumu, Samantha Jenner, Tunde V. Ojumu

P 4.07 The impact of transboundary transport of air pollutants on air quality in the United Kingdom and Poland

Malgorzata Werner, Maciej Kryza, Anthony J. Dore, Kinga Walaszek

SESSION 5 LOCAL AND URBAN SCALE MODELLING

P 5.01 Modeling of the Urban Heat Island and its effect on air quality using WRF/WRF-Chem – Assessment of adaptation and mitigation strategies for a Central European city

Joachim Fallmann, Stefan Emeis, Peter Suppan

P 5.02 Assessment of three dynamical urban climate downscaling methods

Rafiq Hamdi, Hans Van de Vyver, Rozemien De Troch, Piet Termonia, Andy Delcloo

P 5.03 Validating the RIO-IFDM-street canyon coupling over Antwerp, Belgium

Wouter Lefebvre, Martine Van Poppel, Bino Maiheu, Stijn Janssen, Evi Dons, Clemens Mensink

P 5.04 The influence of the changing NOx-split for compliance to the European limit values in urban areas

Wouter Lefebvre, Charlotte Vanpoucke, Frans Fierens, Stijn Janssen, Bart Degraeuwe, Clemens Mensink

P 5.05 Evaluation of air pollution models for their use in emergency response tools in built environments: The 'Michelstadt' case study in COST ES1006 action.

Bernd Leitl, Silvia Trini Castelli, Kathrin Baumann-Stanzer, Tamir G. Reisin, Fotios Barmpas, Márton Balczó, Spyros Andronopoulos, Patrick Armand, Klara Jurcakova, M. Milliez, COST ES1006 Members

P 5.06 Development of a numerical prediction model system for the assessment of the air quality in Budapest

Zita Ferenczi, Krisztina Labancz, Roland Steib

P 5.07 Air quality forecast for the large Israeli cities Jerusalem, Tel Aviv and Haifa: WRF-Chem model simulation

Yosef Levitin

P 5.08 Analysis of the differences between pollution levels into a new and an old district of a big city using dispersion simulations at microscale

Gianni Tinarelli, Lorenzo Mauri, Cristina Pozzi, Alessandro Nanni, Andrea Ciaramella, Valentina Puglisi, Tommaso Truppi

P 5.09 Water Tank Simulation of a dense fluid release

Luca Mortarini, Stefano Alessandrini, Enrico Ferrero, Domenico Anfossi, M. Manfrin

P 5.10 The porosity concept applied to urban canopy improves the results of Gaussian dispersion modelling of traffic-dominated emissions

Marko Kaasik, Mihkel Pindus, Tanel Tamm, Hans Orru

P 5.11 On the accounting for free-flow stability effects on urban roughness sub-layer exchange parameters

Evgeni Danov Syrakov, Kostadin Ganchev Ganev

P 5.12 Analysis of volcanic emissions on the formation of acid rain in a mid-sized Andean city: Manizales, Colombia

Carlos Mario Gonzalez

P 5.13 Plume formation and dispersion according to temperature decrease of flue gas from thermal power station

Sang Bum Kim, Shi Chang Wu, Young Min Jo, Young Koo Park

P 5.14 An evaluation of the box model estimating carbon monoxide concentration in the city of Caracas, Venezuela

Arcangelo Sena D'Anna, Luis Dìaz Alarcón, Alberto Espinoza, Enrique Chacón

P 5.15 Implications of vegetation on pollutant dispersion in an urban neighborhood

Christof Gromke, Bert Blocken

SESSION 6 MODEL ASSESSMENT AND VERIFICATION

P 6.01 Multi-model ensembles: how many models do we need?

Efisio Solazzo, Stefano Galmarini

P 6.02 Diagnostic Evaluation of NOx Upgrades on Air Quality Forecast

Li Pan, Daniel Tong, Pius Lee, Hyuncheol Kim, Tiangfen Chai

P 6.03 Presentation and validation of a new building downwash model

Wouter Lefebvre, Guido Cosemans, Stijn Janssen, Clemens Mensink

P 6.04 Boundary-layer and air quality study at “Station Nord” in Greenland

Ekaterina Anguelova Batchvarova, Sven-Erik Gryning, Henrik Skov, Lise Lotte Soerensen, Hristina Kirova, Cristoph Muenkel

P 6.05 Evaluation of mesoscale model profiles against consecutive radiosounding data during the Sofia 2003 experiment

Hristina Kirova, Ekaterina Batchvarova, Valeri Nikolov

P 6.06 The use of a mesoscale modeling system together with surface and upper observational data to estimate hourly benzene impacts in a mountainous coastal area

Verónica Valdenebro, Estíbaliz Sáez de Cámara, Gotzon Gangoiti, Lucio Alonso, Jose Antonio García, Juan Luis Ilardia, Nerea González, Estíbaliz Arraibi

P 6.07 A sensitivity analysis of the WRF model forecasts to shortwave radiation schemes for air quality purposes and verification with observational data

Kinga Walaszek, Maciej Kryza, Malgorzata Werner

P 6.08 Comparing WRF PBL schemes with experimental data over Northern Italy

Alessandra Balzarini, Federico Angelini, Luca Ferrero, Marco Moscatelli, Guido Pirovano, Giuseppe Maurizio Riva, A. Toppetti, Ezio Bolzacchini

P 6.09 Surface ozone variability in synoptic pattern perspectives

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