

Final program

37th International Technical Meeting on Air Pollution Modelling and its Application

September 23 - 27, 2019 – Hamburg, Germany

Key topic 1: Aerosols in the atmosphere

Key topic 2: Processing of emissions

Key topic 3: Regional & intercontinental modelling

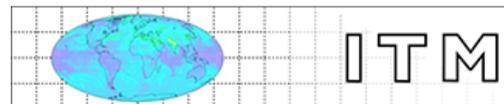
Key topic 4: Data assimilation & air quality forecasting

Key topic 5: Air quality & climate change

Key topic 6: Air quality, human & environmental health

Key topic 7: Local & urban modelling

Key topic 8: Model assessment & verification



37th International Technical Meeting on Air Pollution Modelling and its Application

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	Monday 23 September	Tuesday 24 September	Wednesday 25 September	Thursday 26 September	Friday 27 September
9:00	Opening session	Peter Bultjes (invited)	Guy Brasseur (invited)	Silvia Trini Castelli (invited)	8.01 Renske Timmermans
9:20	Annica Ekman (invited)				8.02 Marina Astitha
9:40					3.06 Wanmin Gong
10:00	1.01 Jianhui Jiang	3.07 Golam Sarwar	5.01 Camilla Andersson	7.01 Myriam Lopes	8.04 Stefano Alessandrini
10:20	1.02 Marie Luttkus	3.08 Nash Skipper	5.02 Patricia Tarin-Carrasco	7.02 Bruce Rolstad Denby	8.05 Andreas Eleftheriou
10:40	Coffee	Coffee	Coffee	Coffee	Coffee
11:00	1.03 Nikos Daskalakis	3.09 Sebnem Aksoyoglu	6.02 Joana Ferreira	7.04 Bertrand Carissimo	8.06 Jiun-Horng Tsai
11:20	1.04 Joachim Fallmann	3.10 Greg Yarwood	6.03 Camilla Geels	7.05 Steven Hanna	8.07 Ari Karppinen
11:40	1.05 Roland Schrödner	3.11 Oriol Jorba	6.04 Elena De Angelis	7.06 Massimo Cassiani	8.08 Risto Hänninen
12:00	1.06 Andy Delcloo	3.12 Pavel Kishcha	6.05 Limei Ran	7.07 Huw Woodward	8.09 Christian Hogrefe
12:20	1.07 Pius Lee	3.13 Markus Geupel	6.06 Antonio Spanu	7.08 Martin Otto Paul Ramacher	Closing session
12:40	Lunch Break	Lunch Break	Lunch Break	Lunch Break	37th ITM Adjourns
14:00	2.01 Volker Matthias	4.01 Fotios Barmpas	Excursion	7.09 Sabine Banzhaf	
14:20	2.02 Marc Guevara	4.02 Lasse Johansson		7.10 Patrick Armand	
14:40	2.03 Calvin Arter	4.03 Mikhail Sofiev		7.11 Marie Haeger-Eugensson	
15:00	2.04 Tero Partanen	4.04 Baek, B.H.		7.12 George Tsegas	
15:20	2.05 Eduardo De la Torre Pascual	4.05 Cécile Defforge		7.13 Bernd Heindold	
15:40	Coffee	Coffee		Coffee	
16:00	3.01 Alejandro Valencia	4.06 Rohit Mathur		7.14 Julia Palamarchuk	
16:20	3.02 Jonilda Kushta	4.07 Enrico Turrini		3.14 Andrea Bisignano	
16:40	3.03 Saravanan Arunachalam	4.08 Annika Vogel		3.15 Rostislav Kouznetsov	
17:00	3.04 Ulas Im	4.09 Olga Sozinova (Ritenberga)		3.16 Victoria Gil	
17:20	3.05 Jan A. Arndt	4.10 Michael Moran		3.17 Paul Makar	
17:40	Poster Presentations	Poster Presentations			
18:00	Break	Break			Break
18:30	Poster Viewing & Reception	Poster Viewing & Reception		19:00 Social Dinner	

NR	ID	Presenting Author	Abstract title	Topic	Presentation
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INV		Annica Ekman	Regional aerosol emission changes: how do they affect the Arctic climate?	aero-atmos	oral
1.01	81	Jianhui Jiang	Role of organic aerosol chemistry schemes on particulate matter modelling in Europe	aero-atmos	oral
1.02	14	Marie Luttkus	Biogenic emissions and urban air quality	aero-atmos	oral
1.03	21	Nikos Daskalakis	Global simulations of Ice Nuclei Particles derived from Organic and Inorganic Particles	aero-atmos	oral
1.04	26	Joachim Fallmann	Aerosol-cloud interactions and urbanization – A modeling case study for Germany	aero-atmos	oral
1.05	111	Roland Schrödner	Aerosol-cloud-interaction in 1985 and today	aero-atmos	oral
1.06	101	Andy Delcloo	Characterisation of light-absorbing atmospheric particles in the Brussels sub-urban atmosphere and implications for the emission scheme of a regional chemical transport model	aero-atmos	oral
1.07	8	Pius Lee	Satellite-aided regional dust forecast to mitigate impact of valley fever and visibility-impairment adverse effects in Southwestern United States	aero-atmos	oral
1.08 P	46	Malgorzata Werner	Application of the WRF-Chem chemical transport model to bioaerosols modelling	aero-atmos	poster

2.01	105	Volker Matthias	Traffic emissions 2040 – Impact on air quality in Germany	mod-proc-emiss	oral
2.02	4	Marc Guevara	HERMESv3: a stand-alone multiscale atmospheric emission modelling framework	mod-proc-emiss	oral
2.03	29	Calvin Arter	A Dynamic Evaluation of Aviation’s Contribution to PM2.5 in the United States	mod-proc-emiss	oral
2.04	83	Tero Partanen	A method to forecast regional emissions from wildfires in African grasslands	mod-proc-emiss	oral
2.05	49	Eduardo De la Torre Pascual	Biogenic VOC emission modelling for Spain: Adaptation of the National Forest Inventory as input for MEGAN3	mod-proc-emiss	oral
2.06 P	45	Martina Frid	Future emissions from road transport and the impacts of changed vehicle fleet composition in Gothenburg 2030 – will predicted technical improvements be sufficient to reach the Swedish environmental goal for NO2 and decrease CO2 emissions?	mod-proc-emiss	poster
2.07 P	112	Daniel Alexander Schwarzkopf	A modular ship emission model and its application in Europe and East Asia	mod-proc-emiss	poster
2.08 P	20	Badeke, Ronny	Microscale Ship Plume Dispersion Modeling for Harbor Areas	mod-proc-emiss	poster
2.09 P	24	Armin Aulinger	Emission factors for inland vessels derived from on-board measurements	mod-proc-emiss	poster
2.10 P	35	Nicola Masey	Modelling hourly emissions from a microsimulation traffic model to use as input data to model high spatial resolution NO2 concentrations using the RapidAir dispersion model	mod-proc-emiss	poster
2.11 P	115	Bok H. Baek	Python-based Mobile Emissions Inventory Model Development	mod-proc-emiss	poster

INV		Peter Bultjes	Improvements of chemical transport modelling over the last 40 years -a personal journey-	reg-inter-mod	oral
3.01	30	Alejandro Valencia	Trade-offs in air pollution exposures due to on-road fleet electrification in North Carolina.	reg-inter-mod	oral
3.02	7	Jonilda Kushta	Timely update of emission inventories with the use of satellite data	reg-inter-mod	oral
3.03	44	Saravanan Arunachalam	Air Quality Impacts of Oil and Gas Emissions in the United States	reg-inter-mod	oral
3.04	1	Ulas Im	Contributions of anthropogenic emissions within the Nordic countries on air pollution and human health	reg-inter-mod	oral
3.05	109	Jan A. Arndt	Natural oxidized reactive nitrogen air concentrations under largely reduced anthropogenic emissions in Europe	reg-inter-mod	oral
3.06	54	Wanmin Gong	Modelling atmospheric composition in the summertime Arctic: transport of North American biomass burning pollutants and its impact on the Arctic marine boundary layer clouds	reg-inter-mod	oral
3.07	67	Golam Sarwar	Effect of aerosol nitrate photolysis on wintertime air quality	reg-inter-mod	oral
3.08	94	Nash Skipper	Improved estimation of background ozone and emission impacts using chemical transport modelling and data fusion	reg-inter-mod	oral
3.09	65	Sebnem Aksoyoglu	Same model (CAMx6.50), same year (2010), two different European projects: How similar are the results?	reg-inter-mod	oral
3.10	80	Greg Yarwood	Source Attribution of Northern Hemispheric Ozone Transport with CAMx	reg-inter-mod	oral

3.11	110	Oriol Jorba	Air quality and atmospheric chemistry with the Online Multiscale MONARCH v2.0 Model at the Barcelona Supercomputing Center	reg-inter-mod	oral
3.12	33	Pavel Kishcha	Spatial distribution of Saharan dust deposition and its trends over Israel, based on daily DREAM model runs from 2006 – 2019.	reg-inter-mod	oral
3.13	25	Markus Geupel	Modelling Nitrogen Deposition in Germany from 2000-2015	reg-inter-mod	oral
3.14	123	Andrea Bisignano	SMART modelling suite: assessment of the turbulence parameterisation for the simulation of atmospheric circulation and dispersion	reg-inter-mod	oral
3.15	120	Rostislav Kouznetsov	Eddy diffusion in the stratosphere inferred from SILAM simulations of SF6	reg-inter-mod	oral
3.16	131	Victoria Gil	Applicability of the zero-out method of source apportionment to air quality modelling in Spain	reg-inter-mod	oral
3.17	55	Paul Makar	AQMEII 4 Deposition: detailing the ongoing fourth phase of the Air Quality Model Evaluation International Initiative	reg-inter-mod	oral
3.18 P	64	David C. Wong	A construction of a coupled global meteorological model, MPAS-A with the air quality model, CMAQ and preliminary model evaluation	reg-inter-mod	oral
3.19 P	34	Ralf Wolke	The aerosol and chemistry model system ICON-MUSCAT	reg-inter-mod	poster
3.20 P	100	Andy Delcloo	Spatio-temporal modelling of grass and birch pollen in Belgium	reg-inter-mod	poster
3.21 P	108	Peter H. Zimmermann	Source segregated model simulations of the atmospheric methane distribution 1997-2016: Evaluation against observations with feedback conclusion on emission sources.	reg-inter-mod	poster
3.22 P	91	Bieser, Johannes	Tackling new challenges - Multi-compartment chemistry transport models	reg-inter-mod	poster

3.23 P	56	Anne Philipp	Investigation of aerosol sources in the Eastern Mediterranean during the A-LIFE field campaign 2017 with the FLEXPART transport model	reg-inter-mod	poster
3.24 P	39	Rilka Valcheva	Climate Change Projections for Bulgaria According to RCP45 Scenario until 2099	reg-inter-mod	poster

4.01	132	Fotios Barmpas	Interpreting measurements from air quality sensor networks:	data-ass-air-qual-forec	oral
4.02	93	Lasse Johansson	Hyperlocal air quality modelling assisted by affordable AQ sensor network	data-ass-air-qual-forec	oral
4.03	96	Mikhail Sofiev	Towards efficient data assimilation technology for coarse atmospheric bioaerosols	data-ass-air-qual-forec	oral
4.04	32	Baek, B.H.	Coupling Meteorology-sensitive emission sources with air quality forecasting system in Korea	data-ass-air-qual-forec	oral
4.05	6	Cécile Defforge	Improving CFD atmospheric simulations at local scale for air pollution modelling using data assimilation	data-ass-air-qual-forec	oral
4.06	66	Rohit Mathur	Need and potential benefits of improving aloft air pollution characterization: A modeling perspective	data-ass-air-qual-forec	oral
4.07	70	E. Turrini	Optimal interpolation based data fusion techniques to improve deterministic air quality forecast	data-ass-air-qual-forec	oral
4.08	40	Annika Vogel	Eigenmode-based parameter perturbation for stochastic chemistry transport modeling	data-ass-air-qual-forec	oral
4.09	79	Olga Sozinova (Ritenberga)	A statistical optimization procedure for ensemble fusion of deterministic models and in-situ observations	data-ass-air-qual-forec	oral

4.10	63	Michael Moran	Evolution of the Performance of the Canadian Operational Regional Air Quality Deterministic Prediction System from 2010 to 2018	data-ass-air-qual-forec	oral
4.11 P	102	Camilla Andersson	Long-term sulfur and nitrogen deposition to the Baltic Sea and surrounding terrestrial ecosystems based on fused measurements and modelling: a monthly reanalysis for the years 1983-2013	data-ass-air-qual-forec	poster
4.12 P	12	Maciej Kryza	The impact of data assimilation on air quality forecasts – the role of various data sources	data-ass-air-qual-forec	poster
4.13 P	5	Man Tat Lei	Macao air quality forecast using statistical methods	data-ass-air-qual-forec	poster
4.14 P	99	Richard Ménard	An ensemble analysis for atmospheric constituent mapping	data-ass-air-qual-forec	poster

INV		Guy Brasseur	A multi-scale perspective of air quality observation, analysis and forecast: from global to regional to local.	mod-air-poll-chang-clim	oral
5.01	107	Camilla Andersson	Changes to the northern latitude European vegetation exposure to ground-level ozone	mod-air-poll-chang-clim	oral
5.02	41	Patricia Tarín-Carrasco	IMPACTS OF FINE PARTICULATE MATTER AND CLIMATE CHANGE ON HUMAN HEALTH OVER EUROPE - PRESENT AND FUTURE SCENARIO	mod-air-poll-chang-clim	oral
5.03 P	11	Alexandra Monteiro	The shipping contribution to air pollution in a changing climate	mod-air-poll-chang-clim	poster

6.01	76	Lise M. Frohn	Modelled concentrations of air pollution components, related health impacts and corresponding external costs over the last 40 years.	air-qual-eff-hum-health-eco	oral
6.02	125	Joana Ferreira	Emission reduction costs and air quality impacts in 2030 under the NEC Directive	air-qual-eff-hum-health-eco	oral
6.03	37	Camilla Geels	Projections of shipping emissions and the related impacts on air quality and human health in a Nordic perspective.	air-qual-eff-hum-health-eco	oral
6.04	15	Elena De Angelis	Assessing the impact of the Po valley air quality plan (Italy)	air-qual-eff-hum-health-eco	oral
6.05	119	Limei Ran	Impact of Nitrogen Deposition Reduction on Agriculture Land Nitrogen Budget and Water Quality: Integrated Modeling Assessment in the United States	air-qual-eff-hum-health-eco	oral
6.06	106	Antonio Spanu	Toward an integrated system of risk forecasting for pollen allergy in France	air-qual-eff-hum-health-eco	oral
6.07 P	133	George Tsegas	Atmospheric dispersion modelling in support of smart farming applications within the frame of the EU LIFE GAIA Sense project	air-qual-eff-hum-health-eco	poster
6.08 P	95	Huseyin Ozdemir	Estimating the Air Pollution Effect on Human Health and Economy in Turkey using the EVA System	air-qual-eff-hum-health-eco	poster
6.09 P	59	Camilla Geels	Air pollution and related health impacts within the Nordic region – an overview of the results coming out of the NordicWelfAir project	air-qual-eff-hum-health-eco	poster
6.10 P	22	Marie Dury	Introduction of low emission zones in Walloon municipalities: sensitivity tests with the Atmostreet model	air-qual-eff-hum-health-eco	poster
6.11 P	52	Valentina Agresti	Modelling chain set up for the assessment of policy impacts on air quality and human health	air-qual-eff-hum-health-eco	poster
6.12 P	2	Marija Zlata Božnar	Population relative doses concept for nuclear emergency	air-qual-eff-hum-health-eco	poster

6.13 P	136	George Tsegas	Modelling of pollutant emissions from a diesel power station and dispersion over extremely complex topography	air-qual-eff-hum-health-eco	poster
6.14 P	137	Pelumi W. Oluwasanya	Modelling, Simulation and Sensitivity evaluation of a miniaturized Capacitive PM2.5 sensor for Personal Exposure Monitoring	air-qual-eff-hum-health-eco	poster
6.15 P	89	Mohamed F. Yassin	Analysis of Volatile Organic Compounds in Dental Clinics- A Case Study	air-qual-eff-hum-health-eco	poster

INV		Silvia Trini Castelli	The Lagrangian approach to dispersion modelling: why we like it (and what we did with it)	local-urban-scale-mod	oral
7.01	130	Myriam Lopes	Modelling setup for assessing the impact of stakeholders and policy scenarios on air quality at urban scale	local-urban-scale-mod	oral
7.02	86	Bruce Rolstad Denby	High resolution forecasting of air quality for all of Norway using EMEP and uEMEP	local-urban-scale-mod	oral
7.03	10	Matthias Karl	Urban atmospheric chemistry with the EPISODE-CityChem model	local-urban-scale-mod	oral
7.04	68	B. Carissimo	A comparison of building effects simulations in different atmospheric dispersion models with detailed sonic measurements from the Jack Rabbit II field experiment	local-urban-scale-mod	oral
7.05	92	Steven Hanna	Results of Comparisons of the Predictions of 16 Dense Gas Dispersion Models with Observations from the Jack Rabbit II Chlorine Field Experiment	local-urban-scale-mod	oral
7.06	82	Massimo Cassiani	Effects of grid resolutions, source size and source elevation on plume dispersion in a neutral boundary layer; a LES study	local-urban-scale-mod	oral
7.07	53	Huw Woodward	A two fluid, Large Eddy Simulation of traffic induced dispersion at a crossroads	local-urban-scale-mod	oral

7.08	88	Martin Otto Paul Ramacher	The impact of BVOC emissions from urban green infrastructure on ozone production in urban areas under heat period conditions	local-urban-scale-mod	oral
7.09	31	Sabine Banzhaf	Application and evaluation of an online coupled chemistry model to the microscale urban climate model PALM-4U	local-urban-scale-mod	oral
7.10	28	Patrick ARMAND	Urgency management of adverse atmospheric releases with a forefront multi-scale high resolution modelling and decision-support system	local-urban-scale-mod	oral
7.11	48	Marie Haeger-Eugensson	Air quality modelling in dense urban areas at ground level - CFD, OSM or Gauss?	local-urban-scale-mod	oral
7.12	134	George Tsegas	Assessment of air quality impacts from the deployment of an intelligent transport system in Balkan cities	local-urban-scale-mod	oral
7.13	38	Bernd Heinold	High-resolution air-quality modeling in urban areas – A case study for the City of Leipzig	local-urban-scale-mod	oral
7.14	127	Julia Palamarchuk	Sensitivity of air quality in Nordic capitals to the meteorology resolution and harbour emission	local-urban-scale-mod	oral
7.15 P	27	Oriol Jorba	LOCAL TRAFFIC CONTRIBUTION TO BLACK CARBON HORIZONTAL AND VERTICAL PROFILES IN COMPACT URBAN AREAS	local-urban-scale-mod	poster
7.16 P	135	Fotios Barmpas	Atmospheric forcing modelling on critical road infrastructures within the frame of the EU PANOPTIS project	local-urban-scale-mod	poster
7.17 P	43	Fabian Lenartz	Validation of street canyon models in Wallonia	local-urban-scale-mod	poster
7.18 P	75	Greg Yarwood	A Flexible Chemistry Editor for CMAQ	local-urban-scale-mod	poster
7.19 P	13	E.C. Chan	Urban-Scale Large-eddy simulation of roadside dispersion and chemical transformation of nitrogen oxides from traffic sources	local-urban-scale-mod	poster

7.20 P	72	Eyal Fattal	A Lagrangian stochastic model for non-homogeneous urban area over complex terrain – representative spatial average approach	local-urban-scale-mod	poster
7.21 P	85	Malgorzata Paciorek	Tri-City air quality assessment driven by SECA regulation, results of 2014 and 2016 local modelling calculation	local-urban-scale-mod	poster
7.22 P	124	Silvia Trini Castelli	Assessment of the sensitivity to the input condition using MicroSpray Lagrangian Particle Model for puff releases in UDINEE Project	local-urban-scale-mod	poster
7.23 P	121	Armistead G. Russell	Empirical Development of Ozone Isopleths: Applications to Los Angeles	local-urban-scale-mod	poster
7.24 P	62	Laetitia Mottet	A coupled city mesh generator, CFD and Data Assimilation model for urban flow simulation.	local-urban-scale-mod	poster
7.25 P	58	Renate Forkel	Test of gas phase chemistry mechanisms and boundary conditions for the LES model with online coupled chemistry PALM-4U	local-urban-scale-mod	poster
7.26 P	138	Hana Chaloupecká	Emergency local-scale dispersion software	local-urban-scale-mod	poster
7.27 P	71	Ehud Gavze	An efficient semi-analytical short range near ground dispersion model based on wind profile and turbulent flux parameterizations	local-urban-scale-mod	poster
7.28 P	114	Jonathan Pleim	High-resolution air quality and meteorology modeling of the Long Island Sound Tropospheric Ozone Study (LISTOS)	local-urban-scale-mod	poster
7.29 P	113	Rita Cesari	A modelling study of the influence of biogenic emissions on ozone concentration in a Mediterranean city.	local-urban-scale-mod	poster
7.30 P	17	Domenico Toscano	A CFD model to assess the impact of cruise ship emissions in the port of Naples	local-urban-scale-mod	poster
7.31 P	18	Bheki Sibiyi	Modelling the effect of traffic emission on urban air quality in different scenarios: A case of Berlin-Brandenburg region	local-urban-scale-mod	poster

7.32 P	126	Tomas Halenka	Urbanization of Weather Forecast, Air-Quality Prediction and Climate Scenarios - Project URBI PRAGENSI	local-urban-scale-mod	poster
7.33 P	116	E. Gatto	Study of the effects of urban vegetation on microclimate in neighbourhood of Mediterranean and European Northern cities	local-urban-scale-mod	poster
7.34 P	117	E. Gatto	The effects of trees on street ventilation in a neighborhood of Pamplona (Spain)	local-urban-scale-mod	poster
7.35 P	90	Olivier OLDRINI	Urban Air Quality Modeling with Mobile Sensors Integration in the Framework of the CEF Open Data AQMO project	local-urban-scale-mod	poster
7.36 P	61	Roberto San Jose	THE USE OF WRF/CHEM TO EVALUATE THE IMPACT OF TWO ELEVATED POINT SOURCES IN MADRID AREA	local-urban-scale-mod	poster
7.37 P	16	Fabio Murena	Particle number concentration modelling in a deep street canyon	local-urban-scale-mod	poster
7.38 P	42	Andy Delcloo	A new statistical-dynamical downscaling methodology to translate regional climate information to urban scale	local-urban-scale-mod	poster
7.39 P	78	Biliaiev M.M.	Numerical simulation of the atmosphere pollution in the case of missile engine tests	local-urban-scale-mod	poster
7.40 P	140	Vivien Voss	AtMoDat (Atmospheric Model Data) - creation of a model standard for obstacle resolving models	local-urban-scale-mod	poster

8.01	9	Renske Timmermans	Comparison of a receptor oriented and a source oriented method for source attribution of high PM10 concentrations in Eastern Germany.	mod-assess-verif	oral
8.02	74	Marina Astitha	Evaluating Seasonality and Trends of a Decadal PM2.5 Simulation using Empirical Mode Decomposition	mod-assess-verif	oral

8.03	87	K. Wyat Appel	Evaluation of the Community Multiscale Air Quality (CMAQ) Model Version 5.3 Release for the United States	mod-assess-verif	oral
8.04	97	Stefano Alessandrini	Testing of a Fast Source Term Parameter Estimation Algorithm for Atmospheric Transport and Dispersion Applications	mod-assess-verif	oral
8.05	139	Andreas Eleftheriou	How accurate are dust surface concentrations forecasts from numerical models? A preliminary analysis of the Multi-Model Median forecasting in Eastern Mediterranean Region	mod-assess-verif	oral
8.06	77	Jiun-Horng Tsai	Assessment on Airborne PM Pollution Control Program in Taiwan by Air Model Simulation	mod-assess-verif	oral
8.07	19	Ari Karppinen	The importance of residential combustion on the concentrations of PM _{2.5} in Nordic cities	mod-assess-verif	oral
8.08	84	Risto Hänninen	Implementing CB05 chemistry transformation scheme into SILAM chemistry transport model	mod-assess-verif	oral
8.09	47	Christian Hogrefe	Evaluating Long-Term Ozone and PM _{2.5} Simulations Over the United States	mod-assess-verif	oral
8.10 P	98	Armistead Russell	Emissions or reactions? Organic acids in the atmosphere	mod-assess-verif	poster
8.11 P	60	Daiwen Kang	The Trend of Lightning Flashes, Lightning NO, and the Implications for Air Quality over the Contiguous United States	mod-assess-verif	poster
8.12 P	57	Anne Philipp	Filling a gap in the wet scavenging scheme in FLEXPART 10.3	mod-assess-verif	poster
8.13 P	103	Ekaterina Batchvarova	Validation of WRF with detailed topography over urban area in complex terrain	mod-assess-verif	poster