

# HARMO 17 Programme: POSTER PRESENTATIONS

**17<sup>th</sup> International Conference on  
Harmonisation within Atmospheric Dispersion  
Modelling for Regulatory Purposes  
9-12 May 2016, Budapest, Hungary**

**Monday, 9 May 2016**

<b>Topic 1: Model evaluation and quality assurance – model validation, model intercomparisons, model uncertainties and model sensitivities</b>		
<b>ID number</b>	<b>authors</b>	<b>title</b>
<b>013</b>	Veronika Groma, Zita Ferenczi, Bálint Alföldy, János Osán, Szabina Török, Roland Steib	EDMS model verification considering remarkable changes in airport traffic system
<b>015</b>	Liyang Chen, Pramod Kumar, Malo Leguellec, Amir-Ali Feiz	An Air Quality CFD model performance in complex environment with EMU observations
<b>029</b>	Primož Mlakar, Dragana Kokal, Boštjan Grašič, Marija Zlata Božnar, Dejan Gradiša, Juš Kocijan	Validation of the performance of meteorological forecasts in fine spatial and temporal resolution designed as an input for dispersion models
<b>040</b>	Andrea L. Pineda Rojas, Nicolás A. Mazzeo	Sensitivity of modelled urban background ozone concentrations to uncertainties in the GRS input variables
<b>054</b>	Pierre Ngae, Grégory Turbelin Pramod Kumar, Sarvesh Kumar Singh, Amir-Ali Feiz, Hamza Kouichi, Emerson Barbosa, Amer Chpoun	A Meandering Short Time Average for dispersion characterization under low winds conditions
<b>057</b>	F. Carrera-Chapela, G. Ruiz-Filippi, J.A. González, G. Yarwood, J. Johnson	WRF surface and upper air validation over Central Chile during La Niña-El Niño transition
<b>061</b>	Sirma Stenzel, Kathrin Baumann-Stanzersen, Gabriele Rau, Renate Teppner, Kurt Leonhartsberger	FLow Simulations for the assessment of small wind turbines in urban Areas
<b>083</b>	A. Hernandez, J.A. Gonzalez, J.J. Casares	Effect of the terrain features on the accuracy of CALMET. A complex terrain case study
<b>086</b>	Roberto Giua, Angela Morabito, Ilenia Schipa, Annalisa Tanzarella, Camillo Silibello, Giorgio Assennato	A nested air quality prediction modelling system for urban scale: an application over southern Italy
<b>095</b>	Irène Korsakissok, Mathieu Contu, Olivier Connan, Anne Mathieu and Damien Didier	Validation of the Gaussian puff model pX using near-field krypton-85 measurements around the AREVA NC La Hague reprocessing plant: comparison of dispersion schemes

123	Ana Graciela Ulke	Wind profiles for the atmospheric boundary layer in different stability conditions
126	Dora Lazar, Tamas Weidinger	CMAQ (Community Multi-Scale Air Quality) atmospheric dispersion model adaptation for Hungary
130	Pavel Juruš, Jan Karel, Radek Jareš, Josef Martinovský, Václav Píša, Robert Polák, Eva Smolová, Emil Pelikán, Marek Brabec, Ondřej Konár, Viktor Fuglík, Kryštof Eben, Jaroslav Resler, Ondřej Vlček, Pavel Machálek, Miloslav Modlík, Helena Hnilicová, Nina Benešová, Daša Srbová, Miloš Zapletal, Radek Kadlubiec, Pavla Škarková, Jiří Barnet	Emission processor for Air Quality models utilizing newly available data
133	Diogo Lopes, Joana Ferreira, Ka In Hoi, Kai Meng Mok, Ana I. Miranda and Ka Veng Yuen	WRF-CAMX application to The Pearl river delta region
142	Kinga Wałaszek, Małgorzata Werner, Maciej Kryza, Carsten Ambelas Skjøth	Impact of biogenic emission model and landuse on isoprene and ozone concentrations from a chemical transport model
156	Marko Kaasik , Gertie Geertsema, Rinus Scheele	Validation of Gaussian plume model AEROPOL against Cabauw field experiment
161	Marko Rus, Rahela Žabkar, Jure Cedilnik,	Hindcasting, verification and sensitivity analysis of photochemical dispersion model CAMx for a long time period
182	Amela Jericevic, Darko Koracin, Goran Gasparac	Boundary layer processes and air pollution modelling in coastal areas
185	Elena Tomasi, Lorenzo Giovannini, Marco Falocchi, Dino Zardi, Gianluca Antonacci	Preliminary pollutant dispersion modelling with CALMET and CALPUFF over complex terrain in the Bolzano basin (IT)

**Topic 2: Environmental impact assessment: Air pollution management and decision support systems**

ID number	authors	title
009	Anselmo de Souza Pontes, Luiz Cláudio Gomes Pimentel , Otto Corrêa Rotunno Filho	Impact assessment of emissions from port of activities on air quality in the metropolitan area of Rio de Janeiro
011	Zita Ferenczi, László Bozó	Effect of the long-range transport on the air quality of Budapest
035	Marilyne Tombette, Emmanuel Quentric; Denis Quelo, Anne Mathieu; Irène Korsakissok; Jérôme Groell, Damien Didier	C3X: an environmental platform for nuclear crisis facing the challenge of its improvements
044	Sylvio Freitas, Henrique Balona, Joana Valente, Jorge Amorim, Carlos H.Borrego,	Numerical and physical modelling of the emission and dispersion of petroleum coke from a seaport
049	Markus Oberle, Cyrill von Arx	JRODOS for nuclear emergencies: Implementation in Switzerland and further developments

<b>081</b>	D. Cartelle, J.M. Vellón, A. Rodríguez, D. Valiño, J.A. González, M. Bao, C. Casas	Estimation of short odor events by using chemically reactive odorants atmospheric dispersion modelling around a pulp paper mill
<b>082</b>	Ivan Kovalets, Alexander Khalchenkov, Christian Asker, Tatiana Lavrova, Sergey Todosienko, Christer Persson	Numerical modelling of concentrations in air of radioactive aerosols and radon following emissions from contaminated territories of Pridneprovsky Chemical Plant in Ukraine
<b>090</b>	Manuel Pujadas, Magdalena Palacios, Lourdes Nuñez, Monica German, David Fernandez-Pampillon, Jose Daniel Iglesias, Beatriz Sanchez	Real Scale Demonstration of the Depolluting Capabilities of a Photocatalytic Pavement in a Real Urban Area
<b>111</b>	Diamando Vlachogiannis, Athanasios Sfetsos, Nikolaos Gounaris, Athanasios Papadopoulos	Investigation of atmospheric dispersion of gas compounds from an industrial installation over a realistic topography
<b>147</b>	Małgorzata Werner, Maciej Kryza, Hanna Ojrzyńska, Kinga Wałaszek, Anetta Drzeniecka-Osiadacz	Air quality forecasts for Poland - application of the WRF-Chem model within the LIFE/APIIS project
<b>150</b>	Maria Skrętowicz, Jerzy Zwoździak	Dynamic-statistical odour dispersion model using the CALPUFF model and geostatistical analysis
<b>169</b>	Eliana Pecorari, Elena Innocente Alice Mantovani Davide Bassano Giancarlo Rampazzo Luca Palmeri	Evaluation of taxi times effect on aircraft exhausts emissions and dispersion
<b>170</b>	Árpád Varga	Far-field effect of a tall building on the shear layer above street canyons
<b>177</b>	Iveta Steinberga, Janis Bikse Jr, Janis Kleperis, Janis Bikse	Application of dispersion models for development of atmospheric pollution management zones in Riga agglomeration

#### **Topic 8: Modelling air dispersion and exposure to accidental releases**

<b>ID number</b>	<b>authors</b>	<b>title</b>
<b>031</b>	Andrew R. Jones, Ayoe B. Hansen and Susan J. Leadbetter	NAME-EPS: Developing a dispersion modelling capability utilising ensemble weather forecasts for emergency-response applications
<b>036</b>	Emmanuel Quentric, Jean-Pierre Benoit; Damien Didier; Marilynne Tombette, Denis Quelo; Anne Mathieu, Irène Korsakissok	scenarX : A platform for the simulation and broadcasting of fictitious environmental measurements during emergency exercises
<b>050</b>	George C. Efthimiou, Spyros Andronopoulos, John G. Bartzis	CFD-RANS prediction of individual exposure from continuous release of hazardous airborne materials
<b>107</b>	Maxime Nibart, Patrick Armand, Christophe Duchenne, Christophe Olry, Armand Albergel, Jacques Moussafir, Olivier Oldrini	Flow and dispersion modelling in a complex urban district taking account of the underground roads connections
<b>122</b>	Emese Homolya, Zita Ferenczi, Péter Zagyvai	An analysis of the evolution of radioactive contamination using the FLEXPART model

145	Janis Lapins, Wolfgang Bernnat, Walter Scheuermann	Validation of the gamma submersion calculation of the remote power plant monitoring system of the federal state of Baden-Württemberg
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**Wednesday, 11 May 2016**

<b>Topic 3: Use of modelling in support of EU air quality directives, including FAIRMODE</b>		
<b>ID number</b>	<b>authors</b>	<b>title</b>
043	Jana Krajčovičová, Jana Matejovičová, Martin Kremler, Vladimír Nemček	Air quality modeling of non-attainment areas as a basis for Air quality plans
085	R. Giua, A. Morabito, I. Schipa, A. Tanzarella, C. Silibello, G. Assennato	Application of a photochemical model to the assessment of regional air quality levels in southern Italy: procedures and results
146	Denise Pernigotti, Claudio A. Belis	SPECIATE and SPECIEUROPE source profiles analysis

<b>Topic 4: Parametrization of physical processes in mesoscale meteorology relevant for air quality modelling</b>		
<b>ID number</b>	<b>authors</b>	<b>title</b>
012	M <sup>a</sup> Ángeles González, Raúl Arasa, Anna Domingo-Dalmau, Ignasi Porrás, Miquel Picanyol, Bernat Codina, Jesica Piñón	A sensitivity analysis for determining optimum WRF and CALPUFF configuration for operational air quality forecast: application to a case study in the port of Huelva (Southern Spain)

<b>Topic 5: Urban scale and street canyon modelling: Meteorology and air quality</b>		
<b>ID number</b>	<b>authors</b>	<b>title</b>
055	Bence Hermann, Miklós Balogh	A hybrid approach for the numerical simulation of flows in urban environment
056	Vlad Isakov, Timothy Barzyk, Saravanan Arunachalam	Reduced-form air quality modeling for community-scale applications
058	Ng Chi-To, Liu Chun-Ho	On the ventilation mechanism over idealized street canyons under stably stratified flow environment
087	Annalisa Di Bernardino, Paolo Monti, Giovanni Leuzzi, Giorgio Querzoli	Water channel investigation of flow and dispersion in street canyons
097	Armando Pelliccioni, Paolo Monti, Gianni Leuzzi	Wind-speed profile and Prandtl's mixing length in urban boundary layers
116	O. Oldrini, M. Nibart, P. Armand, J. Moussafir, C. Duchenne	Development of the parallel version of a CFD – RANS flow model adapted to the fast response in built-up environments
117	Grazia Ghermandi, Sara Fabbi, Alessandro Bigi, Sergio Teggi, Luca Torreggiani	Microscale simulation of road traffic emissions from vehicular flow automatic surveys AND comparison with measured concentration data

<b>129</b>	Jaroslav Resler, Pavel Krč, Michal Belda, Pavel Juruš, Kryštof Eben, Nina Benešová, Daša Srbová, Přemysl Derbek, Pavel Hruběš, Jan Lopata, Ondřej Vlček, Jana Blumelová, Mária Kazmuková, Petra Bauerová	Street-level modelling of the effect of climate adaptation measures on air quality
<b>132</b>	Leszek Osrodka, Ewa Krajny	The relationship between PM concentrations and ventilation conditions obtained from SODAR measurements at the example Krakow
<b>134</b>	Attila Kovács, Róbert Mészáros, Ádám Leelőssy, István Lagzi	Air pollution modeling in urban environment using WRF-Chem model
<b>159</b>	Jiri Pospisil, Miroslav Jicha	Vehicle induced turbulence as key factor influencing pollutant dispersion in close vicinity of traffic paths
<b>178</b>	Chi N'Guyen, Lionel Soulhac	Evaluation of data assimilation methods at urban scale with the SIRANE model

#### **Topic 6: Use of modelling in health and exposure assessments**

<b>ID number</b>	<b>authors</b>	<b>title</b>
<b>010</b>	Prashant Kumar, Anju Goel	Characterisation of pedestrian exposure to nanoparticle emissions at traffic intersections
<b>024</b>	Oscar Björnham, Håkan Grahn	Dynamic urban population simulator
<b>026</b>	Brian Holland, Qiguo Jing, Weiping Dai, Tiffany Stefanescu	Explosion damage and injury assessment modelling: balancing model sophistication with finite resources
<b>071</b>	Christian Maurer, Delia Arnold, Florian Geyer, Claudia Flandorfer, Marcus Hirtl, Sabine Eckhardt, Thomas Krennert and Gerhard Wotawa	The influence of the Holuhraun eruption SO <sub>2</sub> emissions on the Austrian air quality
<b>112</b>	Alexander J. Slawik, Kevin C. Axelrod, James B. Silva, Ivo K. Dimitrov, Jeffrey T. Urban, and Nathan Platt	Are toxic load-based toxicity models consistent with experimental observations? Independent analysis of steady-exposure data from the 2012–2013 ECBC/NAMRU-D toxicological experiments
<b>141</b>	Lorentz, Helmut, Hermann Jakobs, Thomas Flassak, Abbas Ranjbar, Majid Azadi	Combining meteorological models and dispersion models on largescale and mesoscale, implemented as an air quality forecast model system in Iran

#### **Topic 7: Inverse dispersion modelling and source identification**

<b>ID number</b>	<b>authors</b>	<b>title</b>
<b>008</b>	Sarvesh Kumar Singh, Raj Rani, Sarvesh Kumar Singh, Gregory Turbelin, Pramod Kumar, Amir-Ali Feiz, Pierre Ngae	Inverse Dispersion Modelling for Identification of Multiple-Point Source Emissions in Atmosphere
<b>047</b>	Nadir Bekka, Pramod Kumar, Amir-Ali Feiz, Sarvesh Singh, Mohamed Sellam, Emerson Barbosa, Pierre Ngae, Grégory Turbelin, Amer Chpoun	A CFD modeling approach for a contaminant released in a city

<b>051</b>	Zsófia Török, Zoltán Szoboszlai, Enikő Furu, Anikó Angyal, Rostislav Kouznetsov, Mikhail Sofiev, Zsófia Kertész	Aerosol transport modelling over Debrecen, Hungary
<b>067</b>	Kathrin Baumann-Stanzer, Sirma Stenzel, Claudia Flandorfer, Gerhard Schauer, Anne Kasper-Giebl	Meteorological analysis of Saharan dust transport to Sonnblick
<b>151</b>	Yelva Roustan, Eva Marie Eriksson, Didier Buty, Christophe Olry, Marc Bocquet	Inverse modelling of methane fugitive emissions from industrial facilities
<b>174</b>	Chi N'Guyen, Lionel Soulhac	Implementation and application of a source apportionment approach in the SIRANE urban air quality model
<b>175</b>	Daria Bilińska, Carsten Ambelas Skjøth, Małgorzata Werner, Maciej Kryza, Małgorzata Malkiewicz, Justyna Krynicka, Anetta Drzeniecka – Osiadacz	Source regions of biogenic aerosols in Wrocław (Poland) and the influence of meteorological data on the HYSPLIT model results