

The 2nd Street-in-Grid (SinG) Modeling Symposium and the 3rd SinG Model Training Workshop

June 24-28, 2019, Champs-sur-Marne, France

Draft Agenda

Days 1-4: The 3rd SinG Model Training Workshop, Ecole des Ponts ParisTech, P402 12
Boulevard Copernic - 77420 Champs-sur-Marne, France

Program

Day 1 (Monday, June 24)

09:30 – 09:50 Opening by Pietro Bernardara

09:50 – 10:20 Introduction to Polyphemus system (Yelva Roustan)

<http://cerea.enpc.fr/polyphemus/introduction.html>

10:20 – 10:30 Coffee break

10:30 – 11:00 Introduction to Polair3D (Yelva Roustan)

11:00 – 12:00 Polair3D – Preprocessing (Yelva Roustan)

Test case #1: Europe (horizontal resolution: 50 km)

Test case #2: France using nesting (horizontal resolution: 13 km)

Test case #3: Île-de-France using nesting (Greater Paris, horizontal resolution: 3 km)

http://cerea.enpc.fr/polyphemus/polair3d_test_case.html

12:00 – 13:30 Lunch break (Campus cafeteria)

13:30 – 15:00 Polair3D – Preprocessing (Yelva Roustan)

15:00 – 15:20 Coffee break

15:20 – 17:00 Polair3D – Preprocessing (Yelva Roustan)

Day 2 (Tuesday, June 25)

09:30 – 10:30 Polair3D – Processing/Postprocessing (Yelva Roustan)

Setup and Run

Verification of simulation results

10:30 – 10:40 Coffee break

10:40 – 11:30 Polair3D – Processing/Postprocessing (Yelva Roustan)

11:30 – 12:00 Introduction to MUNICH (Youngseob Kim)

Concept and overview of physical parametrizations

12:00 – 13:30 Lunch break (Campus cafeteria)

13:30 – 15:00 MUNICH – Preprocessing (Youngseob Kim)

Test-case: a Paris suburb Le Perreux-sur-Marne

Geographical data / Meteorological data

Traffic model and emissions

Boundary conditions

15:00 – 15:20 Coffee break

15:20 – 17:00 MUNICH – Preprocessing (Youngseob Kim)

Day 3 (Wednesday, June 26)

09:30 – 10:30 MUNICH – Processing/Postprocessing (Youngseob Kim)
Verification of simulation results

10:30 – 10:40 Coffee break

10:40 – 12:00 MUNICH – Processing/Postprocessing (Youngseob Kim)
Verification of simulation results

12:00 – 13:30 Lunch break (Campus cafeteria)

13:30 – 15:00 MUNICH – Processing/Postprocessing (Youngseob Kim)
Verification of simulation results

15:00 – 15:20 Coffee break

15:20 – 17:00 MUNICH – Processing/Postprocessing (Youngseob Kim)
Verification of simulation results

Day 4 (Thursday, June 27)

09:30 – 10:00 Introduction to Street-in-Grid (Youngseob Kim)

10:00 – 10:30 Street-in-Grid – Preprocessing (Youngseob Kim)
Test-case: Le Perreux-sur-Marne

Removal of the traffic emission from the emission data in order to avoid double

10:30 – 10:40 Coffee break

10:40 – 12:00 Street-in-Grid – Preprocessing (Youngseob Kim)

12:00 – 13:30 Lunch break (Campus cafeteria)

13:30 – 15:00 Street-in-Grid – Processing/Postprocessing (Youngseob Kim)
Setup and Run

Verification of simulation results

Comparison between Polaird3D, MUNICH and SinG

15:00 – 15:20 Coffee break

15:20 – 17:00 **SinG Developer and User Meeting (with Yang Zhang, Pietro Bernardara, Yelva Roustan, Karine Sartelet, Youngseob Kim) and Closing**

Day 5 (Friday, June 28), The 2nd SinG Modeling Symposium, Navier amphitheater, Ecole des Ponts ParisTech, 12 Boulevard Copernic - 77420 Champs-sur-Marne, France
(For presentations with multiple coauthors, the speakers are indicated with “*”)

Time	Activities
8:30-9:00 am	Registration and A/V Upload for Oral Presenters
	Introduction and Welcome (Co-Chairs: Pietro Bernardara and Yang Zhang)
9:00-9:10 am	Opening Remark and Logistics (Yang Zhang, MEAS, NCSU)
9:10-9:20 am	Welcome Remark by CEREА, France (Pietro Bernardara, Director, CEREА, France)
9:20-9:30 am	Welcome Remark by ENPC or EDF R&D, France (ENPC Director (or Director from EDF R&D) France)
9:30-9:50 am	Photo and Coffee Time (Photo for All Participants)
Session 1	Street Level Air Quality Modeling in Europe (Invited Presentation) (Co-Chairs: Karine Sartelet and Pietro Bernardara)
9:50-10:15 am	Overview on Current Development and Application of SinG model (Karine Sartelet, <i>Center for Atmospheric Research (CEREА), France</i>)
10:15-10:40 am	Development and Applications of Multi-Scale Air Quality Modelling in Denmark (Steen Solvang Jensen*, Matthias Ketzел, Jørgen Brandt, Jesper Christensen, Morten Winther, Ole-Kenneth Nielsen, Marlene Plejdrup, Ole Hertel, Thomas Ellermann, <i>Aarhus University, Denmark</i>)
10:40-11:05 am	Air Pollution Modelling from Continental Scale Down to Street Level for the City of Zurich (D. Brunner*, Q. Mu, D. Ochsner, and A. Berchet, <i>Swiss Federal Laboratories for Materials Science and Technology (EMPA), Switzerland</i>)
11:05-11:30 am	CALIOPE-Urban v1.0: Coupling R-LINE with a Mesoscale Air Quality Modelling System for Urban Air Quality Forecasts over Barcelona City (Spain) (Jaime Benavides, Michelle Snyder, Marc Guevara, Albert Soret, Carlos Pérez García-Pando, Fulvio Amato, Xavier Querol, and Oriol Jorba*, <i>Barcelona Supercomputing Center, Spain</i>)
11:30 am-1:00 pm	Lunch Break
Session 2	Street Level Air Quality Modeling in Asia and South America (Invited Presentation) (Co-Chairs: Youngseob Kim and Sunling Gong)
1:00-1:25 pm	Development of a New System to Simulate Street Level Pollution (Sunling Gong* and Jianjun He, <i>Chinese Academy of Meteorological Sciences, China</i>)
1:25-1:50 pm	Simulation for the Impacts of Motor Vehicle Restriction on Air Pollution at the Street-Level using WRF/Chem and MUNICH Model in Kaifeng, China (Hongquan Song*, Haipeng Zhao, Xiaoyang Li, Tuanhui Wang, Shenghui Zhou, <i>Henan University, China</i>)
1:50-2:15 pm	Street Level Pollutants in Urban Area of Beijing: Modeling and Source Apportionment

	(Xin Li*, Jianjun He, Youngseol Kim, Zhiliang Yao, Yang Zhang, Qiang Zhang, <i>Beijing Technology and Business University, China</i>)
2:15-2:40 pm	Simulation of NO_x and O₃ concentrations at Street Level in Sao Paulo Urban Canyons with MUNICH Model (Mario Gavidia-Calderon, Sergio Ibarra-Espinosa, Youngseob Kim, Maria de Fatima Andrade, Yang Zhang*, <i>University of São Paulo, Brazil</i>)
2:40-3:00 pm	Coffee Break
Session 3	Urban Air Quality Modeling and Forecasting (Platform Presentation) (Co-Chairs: Yelva Roustan and Hongquan Song)
3:00 -3:15 pm	Street-scale Air Quality Modelling in Beijing with ADMS-Urban: Emissions Development and Model Validation (Michael J. Biggart*, Ruth M. Doherty, David J. Carruthers, Jenny R. Stocker, Oliver Wild, and Michael Hollaway, <i>University of Edinburgh, U.K.</i>)
3:15-3:30 pm	Multi-scale Modeling of Gas-Phase Pollutant over Paris (Lya Lugon* and Karine Sartelet, <i>Center for Atmospheric Research (CEREA), France</i>)
3:30-3:45 pm	Source Apportionment of PM_{2.5} in Chengdu with High Resolution Brute-Force CMAQ Modeling Technology (Chengwei Lu*, Ye Deng, Tianyue Zhang, Xinyue Yang, Danlin Song, and Qinwen Tan, <i>Chengdu Academy of Environmental Sciences, Chengdu, China</i>)
3:45-4:00 pm	Real-time Forecasting of Air Pollution using WRF-Chem Model over New Delhi (Aman W. Khan* and Prashant Kumar, <i>Space Applications Centre, ISRO, India</i>)
4:00-4:15 pm	Particulate Matter Forecasting using WRF-Chem Model over Ulanbator (Tergel Shijirtuya* and Aman W. Khan, <i>National Agency for Meteorology and Environmental Monitoring of Mongolia, Mongolia</i>)
Session 4	Open Discussions: Collaboration and Funding Opportunities (Leaders: Yang Zhang and Pietro Bernardara)
4:15-5:00 pm	Collaboration and Funding Opportunities on Model Development and Application using SinG and Other Urban/Street Network Models
5:00 pm	Adjourn