

The 1st Street-in-Grid (SinG) Modeling Symposium and the 2nd SinG Model Training Workshop

May 24-25, 2018, Beijing, China

Final Agenda

Day 1 The 1st SinG Modeling Symposium (Thursday, May 24, 2018), LAPC Meeting Room
(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 (Chair: Yang Zhang)
9:00-9:10 am	Opening Remark and Logistics (Yang Zhang, MEAS, NCSU)
9:10-9:15 am	Welcome Remark by Local Host (Zifa Wang, Director of LAPC, IAP, China)
9:15-9:20 am	Welcome Remark by CEREА, France (Pietro Bernardara, Director, CEREА, France)
9:20-9:30 am	Photo time (Outside the Meeting Room, All Participants)
Session 1	Urban Air Pollution: Street Level Modeling and Source Apportionment (Invited Presentation) (Co-Chairs: Zifa Wang and Jason Ching)
9:30-9:50 am	Simulation of Street-Level Concentrations of Gas-Phase and Particle-Phase Air Pollutants Using a Multi-Scale Model (Youngseob Kim*, Lya Lugon, Karine Sartelet, Yelva Roustan, You Wu, and Christian Seigneur, Center for Atmospheric Research (CEREА), France)
9:50-10:10 am	WUDAPT Database and Infrastructure for Multi-Scale Urban to Street-Level Modeling (Jason Ching, University of North Carolina, Chapel Hill, US)
10:10-10:30 am	Integrating Multiple Methods in Understanding PM_{2.5} Sources in Beijing (Mei Zheng*, Yue Liu, Caiqing Yan, Xuhui Cai, and Jie Li, Peking University, China)
10:30-10:40 am	Coffee Break
Session 2	Urban Air Pollution: Emissions and Exposure (Invited Presentation) (Co-Chairs: Pietro Bernardara and Rod Jones)
10:40-11:00 am	Fine Scale Real Time Air Quality Forecast for Exposure (Jimmy Fung* and Alexis Lau, Hong Kong University of Science and Technology, China)
11:00-11:20 am	Using Low Cost Air Quality Sensors for Studies of Vertical Structure in the Urban Environment (Rod Jones, University of Cambridge, U.K.)
11:20-11:40 am	A Method of Spatial-Temporal Sensing and Simulation for Fugitive Dust Emission from Urban Roads (Hongquan Song*, Xiaoyang Li, Haipeng Zhao, and Yunfeng Kong, Henan University, China)
11:40-12:00 pm	Modeling Traffic-Related Particle Dispersion in an Urban Built-up Area with Viaduct (Y.T. Huang, Y.P. Luo, J.C. Chen*, Y.H. Liu, Sun Yat-Sen University, China)

12:00-1:30 pm	Lunch Break
Session 3	Urban Air Pollution: SinG Model Applications in Cities (Oral Presentation) (Co-Chairs: Yelva Roustan and Jimmy Fung)
1:30 -1:45 pm	Application of Street-in-Grid Model in an Urban Area of Beijing: Input Preparation (Xin Li*, Qiang Zhang, Zhiliang Yao, and Xianbao Shen, Tsinghua University, China)
1:45-2:00 pm	Development of a High Temporal-Spatial Resolution Vehicle Emission Inventory Based on NRT Traffic Data and Its Impact on Air Pollution in Beijing (He Jianjun*, Gong Sunling, Jing Boyu, Wu Lin, and Mao Hongjun, Chinese Academy of Meteorological Sciences, China)
2:00-2:15 pm	Development of a high-spatial and temporal on-road emission inventory based on the traffic data and its impact on air quality in Guangzhou (Luolin Wu* and Xuemei Wang, Jinan University, China)
2:15-2:30 pm	Application of MUNICH model in the Metropolitan Area of São Paulo, Brazil (Mario Gavidia-Calderón, Sergio Ibarra-Espinosa, Veronika Brand, Yongseob Kim, Yang Zhang*, Maria de Fatima Andrade, University of São Paulo, Brazil)
2:30-2:45 pm	Street-in-Grid Modeling of Urban Air Pollution Using WRF/Chem-MUNICH over the Baltimore Metropolitan area in the U.S. (Chinmay Jena, Chen Yuan, Yang Zhang*, Youngseob Kim, Yelva Roustan, and Karine Sartelet, North Carolina State University, U.S.)
2:45-3:15 pm	Coffee Break
Session 4	Open Discussions: Collaboration and Funding Opportunities (Leaders: Yang Zhang and Pietro Bernardara)
3:15-4:15 pm	Collaboration and Funding Opportunities on Model Development and Application using SinG and Other Urban/Street Network Models
Session 5	Open Discussions: SinG Developer and User Meeting (Leaders: Youngseob Kim and Yelva Roustan)
4:15-5:15 pm	SinG Developer and User Meeting The system requirement for SinG model training will be covered. Please bring your laptop if you need help to install the program.
5:15 pm	Adjourn

Day 2 The 2nd SinG Modeling Training (Friday, May 25), LAPC Meeting Room

Time	Activities
9:00-9:30 am	Introduction to SinG Concept (Yelva Roustan)
9:30-10:15 am	Hands-on Polair3D (Yelva Roustan)
10:15-10:30 am	Coffee Break
10:30-12:00 pm	Hands-on Polair3D (Yelva Roustan)
12:00-1:00 pm	Lunch Break
1:00-2:45 pm	Hands-on MUNICH (Youngseob Kim)
2:45-3:00 pm	Coffee Break
3:00-4:30 pm	Hands-on SinG (Youngseob Kim)
4:30-5:00 pm	Questions and Discussions (Yelva Roustan and Youngseob Kim)

Preparation for the SinG Model Training

For a successful training, some preparations are needed for all participants before the training.

1. Linux-laptop

Every participant will need to bring a linux-laptop. No desktop is provided for the training.

2. Install required libraries

Please check if you have the following libraries in your laptop:

- GNU GCC compiler (later than 3.2)
- Blitz++
- Blas/Lapack
- NetCDF
- scon
- Python: Numpy, Matplotlib, Scipy, Basemap

3. Download the program

The SinG model is a part of the air quality modeling system Polyphemus.

Please go to the download page for Polyphemus <http://ceraa.enpc.fr/polyphemus/download.html>

Download the source code Polyphemus-

1.10 <https://gforge.inria.fr/frs/download.php/file/37491/Polyphemus-1.10.tar.bz2>

You are strongly advised to download and read Polyphemus User's Guide before the training (<https://gforge.inria.fr/docman/view.php/1173/14015/Polyphemus-1.10-Guide.pdf>)

4. Install and run Test case

Please go to http://ceraa.enpc.fr/polyphemus/polair3d_test_case.html and follow the steps to run the Polair3D (3-D Eulerian model of Polyphemus) Test case.

If you manage to run this test case, your laptop is ready to run a SinG simulation.

The system requirement for SinG model training will be covered at the SinG developer and user meeting during 4:30-5:30 pm on May 24 2018. Please bring your laptop if you need helps to install the program. For any questions on the SinG training, please contact Youngseob Kim (youngseob.kim@enpc.fr) or Yelva Roustan (yelva.roustan@enpc.fr). If your questions are on installing and running of the program, please contact them by polyphemus-help@lists.gforge.inria.fr to get a quick answer.

Arrive LAPC by public transport

- 1 Enter the subway system
- 2 Take line 10, stop at Jiandemen station
- 3 Find LAPC

(2) Find the tower, where LAPC locates



(1) Take subway line 10 :
Stop at the Jiandemen
station, and take Exit A

地铁10号线:健德门站



(3) Find entry to LAPC

(4) Gate of LAPC



Arrive LAPC by taxi

Show the following address to taxi driver

中科院大气物理所，北京市海淀区北土城西路 119 号，地铁健德门附近

