The Abdus Salam International Centre for Theoretical Physics

Workshop on Aerosol Impact in the Environment: from Air Pollution to Climate Change

Organizer(s): Directors: Dario Giaiotti, Fabien Solmon (Local Organiser), Fulvio Stel
Trieste - Italy, 08 - 12 August 2011

Venue: Leonardo da Vinci Building Euler Lecture Hall

Final programme

Monday, 8th August (Room:Leonardo da Vinci Building Euler Lecture Hall)

8 August 2011

08:30 - 09:30	(Room: Leonardo da Vinci Building, Lobby) **Registration and Administrative Formalities**
09:30 - 09:45	**Directors of Workshop** **Opening Remarks and Welcome**
09:45 - 10:30	**E. Vignatti** / *Inst. for Environment & Sustainability, Ispra, Italy* **Introductory talk: Air quality and climate change, How to improve both at the same time**
10:30 - 11:00	(Room: Leonardo da Vinci Building Terrace) --- Coffee Break ---
11:00 - 12:00	**E. Vignatti** / *Inst. for Environment & Sustainability, Ispra, Italy* **Aerosol processing in the atmosphere: emissions, dynamics and deposition**
12:00 - 14:00	(Room: Leonardo da Vinci Building Cafeteria) --- Lunch Break ---
14:00 - 15:00	**G. Martini** / *Inst. for Environment & Sustainability, Ispra, Italy* **Emission processes and regulation - combustion engines**
15:00 - 15:45	**F. Stel** / *ARPA.,FVG, , Italy* **Aerosol Emissions processes**

15:45 - 16:15 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

16:15 - 17:00 **F. Solmon** / *ESP, ICTP, Trieste, Italy*
Aerosol emission processes in Africa

17:00 - 18:00 **Introduction to the Poster session**

Tuesday, 9th August (Room:Leonardo da Vinci Building Euler Lecture Hall)

9 August 2011

09:15 - 10:00 **M. Mallet** / *Laboratoire d'Aerologie, Toulouse, France*
Introduction to Aerosol / radiation/ climate interactions

10:00 - 10:45 **O. Dubovik** / *Lab. d'Optique Atmospherique, Lille, France*
Development of aerosol retrieval: Applications in ground-based remote sensing.

10:45 - 11:00 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

11:00 - 11:40 **O. Dubovik** / *Lab. d'Optique Atmospherique, Lille, France*
Potential of aerosol properties from enhanced satellite observations.

11:40 - 12:00 **A. Panicker** / *Pukyong Nat. University, Busan, Rep. of Korea*
Black carbon radiative forcing over a GAW site in Korea

12:00 - 12:20 **T. Bedareva** / *V.E.Zuev Inst. of Atmospheric Optics, Tomsk, Russian Federation*
Aerosol optical model under low and high atmospheric turbidity for West Siberia

12:30 - 14:00 (Room: Leonardo da Vinci Building Cafeteria)
--- Lunch Break ---

14:00 - 15:00 **F. Solmon** / *ESP, ICTP, Trieste*
Aerosol regional radiative effects and climatic impact modelling over Africa

15:00 - 15:45 **M. Mallet** / *Laboratoire d'Aerologie, Toulouse, France*
Assessing the regional radiative and climate impact of aerosol: charmex

15:45 - 16:15 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

16:15 - 16:35 **K. Spoler Canic** / *Meteorological & Hydrological Service, Zagreb, Croatia*
Saharan dust episodes in urban aerosol in Croatia and Italy

16:40 - 17:10 **M. Chiaccio** / *ESP, ICTP, Trieste, Italy*
Global dimming and role of aerosols

19:00 - 21:00 (Room: Leonardo da Vinci Building Cafeteria)
--- Workshop Reception ---

Wednesday, 10th August (Room:Leonardo da Vinci Building Euler Lecture Hall)

10 August 2011

09:15 - 10:00 **R. T. Bruintjes** / *National Center for Atmospheric Research, Colorado, USA*
History and basics of aerosol-cloud interactions

10:00 - 10:45 **N. Meskhidze** / *North Carolina State University, Raleigh, USA*
The Effect of Ocean Biogeochemistry on Aerosol, Clouds and Climate

10:45 - 11:15 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

11:15 - 12:00 **R. T. Bruintjes** / *National Center for Atmospheric Research, Colorado, USA*
Aerosols and Weather Modification including Geo-Engineering principles

12:00 - 14:00 (Room: Leonardo da Vinci Building Cafeteria)
--- Lunch Break ---

14:00 - 14:20 **B. Szabo Takacs** / *University of Pecs, Pecs, Hungary*
Numerical simulation of the interaction between stratocumulus clouds and the aerosol particles

14:20 - 15:15 **N. Meskhidze** / *North Carolina State Univ., Raleigh, USA*
Modeling of Atmospheric Transport and Deposition of Soluble Iron to the Oceans

15:15 - 15:45 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

16:15 - 18:30 **General Discussion and Poster session**

Thursday, 11th August (Room:Leonardo da Vinci Building Euler Lecture Hall)

11 August 2011

09:15 - 10:15 **D. Giaiotti** / *ARPA FVG, Palmanova, Italy*
Numerical modelling for air quality at regional scale: the aerosol challenge.

10:15 - 10:45 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

11:00 - 11:45 **F. Stel** / *ARPA FVG, Palmanova, Italy*
Basics of mitigation strategy on aerosol problem: from facts to acts

11:45 - 12:05 **O. Skrynyk** / *Ukrainian Res. Hydrometeorological Inst., Kyiv, Ukraine*
Parameterization of near-source atmospheric diffusion in eulerian models: comparative analysis

12:05 - 13:55 (Room: Leonardo da Vinci Building Terrace)
--- Lunch Break ---

14:00 - 14:45 **D. Ruprecht** / *LARS, Environmental Research Lab., Firenze, Italy*
Comparison of different real time measurements methods (gravimetric manual, gravimetric automatic (BAM & TEOM), OPC, CPC, DMA, DMPS, SMPS, APS, BC, OC): differerent suitability for different kind of environmental assessment.

14:45 - 15:00 **E. Baiutti & F. Moimas** / *ARPA, FVG, Italy*
Road salting and PM10 concentration

15:00 - 15:20 **L. K. Sahu** / *Physical Research Laboratory, Ahmedabad, India*
Seasonal and diurnal variations of carbonaceous aerosols in Bangkok

15:20 - 15:50 (Room: Leonardo da Vinci Building Terrace)
--- Coffee Break ---

15:50 - 16:35 **D. Ruprecht** / *LARS, Environmental Research Lab., Firenze, Italy*
Spatial heterogeneity of chemical constituents of fine particulates: implications for epidemiological and exposure research.

Friday, 12th August (Room:Leonardo da Vinci Building Euler Lecture Hall)

12 August 2011

10:00 - 12:00 (Room: Leonardo da Vinci Building Terrace)
Technical Emperiments

12:00 - 12:30 **Conclusion and Final Remarks**