

## Welcome to 5<sup>th</sup> AEROCOM Workshop!

- Please provide us your presentation on USB memory stick
  - Name the file with your last name, agenda block number, and PC or MAC
  - Powerpoint (ppt) or Adobe Acrobat (pdf)
  - ex. Ferrare\_block1\_PC.ppt or Ferrare\_block1\_MAC.ppt
- Please see Diana McQuestion this morning (Tuesday) if you have registration questions
- Please indicate on sign-up sheet your group dinner (Il Giardino) preference (yes or no...if yes, how many?)
- Free internet access is available in this room and Ramada hotel rooms
  - Golden Tree network
- Ramada hotel parking is free...indicate that you are attending AEROCOM meeting
- Please fill out and return AEROCOM questionnaire
- Registration folder contains:
  - agenda
  - abstracts
  - attendee list
  - list of local restaurants
  - AEROCOM questionnaire
- Registration receipt is in your name tag

Tuesday  
October 17  
AM sessions

**Day 1** (Oct. 17<sup>th</sup>)

**Block 0**      **8.30-9.00**

**welcome, scope, (brief) review**

<b>R. Ferrare</b>	local	15
<b>M. Schulz</b>	project	15

welcome and logistics  
what we have achieved so far (review)

*10min break*

**Block 1**      **9.10-10.50**

**aerosol properties –part 1**

chair: J. Wilson

*Topic: new products (or updates), accuracy and preparations for scale of global models*

<b>R. Ferrare</b>	ground	20
<b>E.-J. Welton</b>	ground	20
<b>D. Giles</b>	ground	20
<b>G. Schuster</b>	ground	20
<b>J. Wilson</b>	ground	20

(raman-) lidar to constrain aerosol alt. simulations  
MicroPulse Lidar network (MPL-net)  
new developments in AERONET processing  
BC-aerosol mass / conc. from AERONET  
extinction, ssa and SU/BC ratios

*20min coffee-break*

**Block 2**      **11.10-12.30**

**aerosol properties –part 2**

chair: J.F. Leon

*Topic: new products (or updates), accuracy and preparations for scale of global models*

<b>R. Kahn</b>	satellite	20
<b>S. DeSouza</b>	satellite	20
<b>N.C. Hsu</b>	satellite	20
<b>R. Levy</b>	satellite	20

(aerosol) air mass mapping with MISR  
dust aerosol retrievals with AIRS  
“Deep Blue” for retrieving AOD over desert  
MODIS collection 5 aerosol properties

*60min lunch-break*

Tuesday  
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PM sessions

Block 3 13.30-14.20

**aerosol properties –part 3**

chair: R. Kahn

*Topic new products (or updates), accuracy issues and limitations for use in modeling*

<b>J.-F. Leon</b>	satellite	20	aerosol remote sensing with PARASOL and A-train
<b>D. Winker</b>	satellite	20	CALIOP – promising global data on aerosol altitude
<b>Z. Li (ppt)</b>	satellite	10	GEWEX aerosol data assessment ( <i>presented by Chin</i> )

***Panel on Data***

14.20-14.40

- what most urgent data needs in global modeling?
- can we quantify accuracy and (sampling) bias issues?
- how to prepare data to be applicable to (temp./spatial) scales in global modeling?

*20min coffee-break*

<b>P. DeCola</b>	sponsor	15	context in global research (GEWEX, IPCC ...)
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*5min break*

Block 4 15.20-16.40

**emission data –part 1**

chair: P. Ginoux

*Topic: emission input (issues and uncertainty) emission scenarios*

<b>T. Bond</b>	future <u>emiss.</u>	20	emission inventories and scenarios
<b>B. DeAngelo</b>	future <u>emiss.</u>	20	energy modeling forum
<b>T. Nozawa</b>	past <u>emissions</u>	20	BC (black carbon)
<b>D. Koch</b>	absorption	20	aerosol absorption in the context of BC emissions

*10min break*

Block 5 16:50-18:10

**emission data –part 2**

chair: T. Bond

*Topic: emission input (issues and uncertainty): past emission*

<b>M. Chin</b>	past emissions	20	satellite fire data and biomass burning emission
<b>C. Ichoku</b>	past emissions	20	MODIS radiative power for biomass burning
<b>P. Ginoux</b>	past emissions	20	20 <sup>th</sup> century dust emission
<b>T. Diehl</b>	past emissions	20	1980-2005 global aerosol emissions

*10min break*

***Panel on AeroCom supported emission data***

18:20-18:50

- updates to the existing data-base?
- what new future scenarios?

...continue discussions during the evening

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**Day 2** (Oct 18<sup>th</sup>)

**Block 6**      **8.30-9.40**

**future and collaborations**

chair: M. Schulz

*Topic: where are we heading*

<b>M. Chin</b>	transport	20	intercontinental transport
<b>C. Textor</b>	shell GCM	20	influences of harmonizing models ( <u>Exp A vs Exp B</u> )
<b>S. Doherty</b>	organization	10	IGAC/WCRP initiative <u>Atmos Chem. and Climate</u>
<b>M. Schulz</b>	set-up	20	the next years (e.g., benchmarking, <u>automatization</u> , new experiments, database access, steering group formation, link to AC&C and HTAP, preparation of 5AR-IPCC)

*10min break*

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***Panel on Future Activities (short term, in one year and in three years)***      **9.50-10.50**

- what can we do with data we already have: absorption, PM<sub>2.5</sub>, wet/dry dep.)
- do we need to repeat (judge progress?) or fine-tune previous experiments
- what new experiments (also in the context of other activities) should be pursued?
- how to share the evaluation task?
- what modeling output (e.g. median) should be shared with other communities?

*20min coffee-break*

**Block 7**      **11.10-12.30**

**constraining modeling with data**

chair: S. Menon

*Topic: additional insights from the use of data and/or smart data –combinations*

<b>P. Colarco</b>	assimilation	20	MODIS, AERONET and surf.conc.data in modeling
<b>C. Kittaka</b>	assimilation	20	CALIPSO, HSRL, MODIS in <u>regional modeling</u>
<b>N. Loeb</b>	multiple sat	20	cloud and aerosol relationships: MODIS, CERES
<b>J. Quaas</b>	multiple sat	20	MODIS and CERES for direct and indirect <u>forcings</u>

*60min lunch-break*

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Block 8 13:30-14.50

**modeling aerosol indirect effects** chair: P. Collarco

*Topic: modeling aerosol indirect effects*

<u>S. Menon</u>	multiple sat	20	MODIS and AMSR-E for indirect 'clues'
<u>J. Penner</u>	indirect mod	20	first clues from initial studies
<u>A. Nenes</u>	indirect mod	20	Modeling of aerosol indirect effects in a GCM
<u>T. Storelvmo</u>	indirect mod	20	indirect impact involving water clouds

*10-min break*

***Panel on modeling the aerosol indirect effect*** 15.00-16.00

- Where are the biggest gaps in modeling aerosol indirect effects?
- Can we rank aerosol indirect effect by their importance?
- Does modeling even consider all indirect effects?
- Can data correlations be a constraint to modeling?
- How meaningful are correlations for interactions or initiator-effect relationships?
- Which aerosol processes can be tested and constrained by which data?
- How to construct useful benchmark tests?

*30-min coffee-break*

Block 9 16.30-18.00

**new developments in modeling** chair: D. Koch

*Topic: new approaches in modeling*

<u>T. Iverson</u> +	processing	30	aerosol processing sensitivity (Oslo-CCM)
<u>X. Liu</u>	processing	20	aerosol processing concepts (NCAR-CAM3)
<u>H. Bian</u>	modular mod	20	a modular approach to understand processing
<u>G. Mann</u>	processing	20	aerosol processing optimization (UK-Leeds model)

*conference dinner* at Il Giardino

19.00

Thursday  
October 19  
AM sessions

### Day 3 (Oct. 19<sup>th</sup>)

Block 10 8.30-9.50

#### forcing /climate impact –part 1 chair: N. Bellouin

*Topics: overview and individual impacts*

<u>M. Schulz</u>	overview	20	aerosol impact on climate: AeroCom diversity
<u>L. Rotstayn</u>	indirect mod	20	Asian aerosol and rainfall in Australia
<u>Y. Balkanski</u>	model-result	20	dust impact (LSCE model)
<u>A. Lauer</u>	model-result	20	ship emission impact (ECHAM5-MADE model)

*30min coffee-break*

Block 11 10.20-11.50

#### forcing /climate impact –part 2 chair: Y. Balkanski

*Topics: general results from modeling*

<u>T. Takemura</u>	model-result	20	total aerosol impact (SPRINTARS)
<u>P. Stier</u>	model-result	20	aerosol absorption impact (ECHAM5-HAM model)
<u>N. Bellouin</u>	model-result	20	total aerosol impact (Hadley model)
<u>Y. Ming</u>	model-result	20	total aerosol impact (GFDL)
<u>S. Kinne</u>	model-result	10	discrepancy betw. data-tied estimates and modeling

*10min break*

#### *Panel on simulating the aerosol impact on climate*

12:00-13:00

- Have recent simulations (bc, mixing, rh) changed our view on the aerosol impact?
- Do we understand discrepancies (of climate impact) to data-tied approaches?
- What aerosol or environm. data are needed most, to reduce impact uncertainties?

*60-min lunch-break*

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**related projects**

chair: S.Kinne

**Block 12**      **14.00-15.25**

*Topic: potential for collaborations*

<b>J. Crawford</b>	project	20	POLARCAT
<b>T. Charlock</b>	project	20	CERES Surface and Atmosphere Radiation Budget
<b>S. Cox</b>	project	15	GEWEX-SRB
<b><u>A.Chu</u></b>	project	20	Air Quality and MODIS
<b><u>S.Gong (ppt)</u></b>	project	10	NARSTO ( <i>presented by <u>Kinne</u></i> )

*5min break*

**Block13**      **15.30-16.00**

**wrap-up**

chair: M. Schulz

summary of meeting **highlights** (for report),  
discussion of **action plan** for AeroCom phase II