GoAmazon2014/5 Science Conference
May 18-20, Harvard University, Cambridge, Massachusetts
http://www.seas.harvard.edu/environmental-chemistry/GoAmazonScienceConference.html

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Organizing Committee:
Scot Martin (chair), Harvard University (USA)
Paulo Artaxo, University of Sao Paulo (Brazil)
Henrique Barbosa, University of Sao Paulo (Brazil)
Jerome Fast, Pacific Northwest National Laboratory (USA)
Jose Fuentes, Pennsylvania State University (USA)
Allen Goldstein, University of California, Berkeley (USA)
Kolby Jardine, Lawrence Berkeley National Laboratory (USA)
Luiz Machado, National Institute for Space Research (Brazil)
Antonio Manzi, National Institute for Amazonian Research (Brazil)
Christopher Pöhlker, Max Planck Institute for Chemistry, Mainz (Germany)
Courtney Schumacher, Texas A&M University (USA)
James Smith, National Center for Atmospheric Research (USA)
Rodrigo Souza, Amazonas State University (Brazil)
Jian Wang, Brookhaven National Laboratory (USA)

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Brazil Amazonas Research Foundation (FAPEAM)

Monday, May 18
Maxwell-Dworkin G115

Registration Open
8:15 Registration

General Introduction and Crosscutting Topics
8:45 Scot Martin, Overview and introduction
9:15 Paulo Artaxo, Aerosol physical and chemical properties before and after the Manaus plume in GoAmazon2014/5
9:30 Luiz Machado, ACRIDICON-CHUVA-GoAmazon2014/5 Highlights ("Aerosol, Cloud, Precipitation, and Radiation Interactions and Dynamics of Convective Cloud Systems")
9:45 Fan Mei, IARA Highlights with respect to cloud probes
10:00 Jerome Fast, An integrated approach to study clouds, aerosols, and land-atmosphere interactions in the Amazon Basin
10:15 - 10:30  **Break**

**BVOCs and Photo-oxidation**  
*Chairs: Allen Goldstein and Julio Tota*

10:30  Stefan Wolff, Reactive and non-reactive trace gas profiles within and above an Amazonian rain forest  
10:45  Angela Jardine, Highly reactive light-dependent monoterpenes in the Amazon  
11:00  Yingjun Liu, Separate quantification of isoprene oxidation products via the hydroperoxyl and nitric-oxide pathways over Amazonia  
11:15  Roger Seco, Isoprene and its oxidation products in the rural atmosphere of the Amazon during the GoAmazon2014/5  
11:30  Lindsay Yee, Observational constraints on terpene oxidation in the Amazon using speciated measurements from SV-TAG

11:45 - 12:30  Discussion with focus on publications

*Tasks for discussions throughout conference: Prepare a list of the science objectives, identify how each person is working in each topic, what is the stage of the study (e.g., mature, developing...), what is the author team to move forward (i.e., how each author contributes...). Readouts are at end of conference.*

12:30 - 13:30  **Lunch** (provided), Maxwell-Dworkin Ground Floor Lobby

**All Posters** - 90 cm (width), 119 cm (height)  
*Maxwell-Dworkin Ground Floor Lobby* (Mon/Tues/Wed; take-down by end of lunch on Wed)

13:30 - 15:30, **Coffee at 15:00**

1. Bill Munger, Fluxes of reactive trace gases from Tapajos forest: Upwind precursor emissions to complement GoAmazon2014/5  
2. Dasa Gu, Biogenic VOC emissions estimated from GoAmazon2014/5 airborne observations and implications for atmospheric chemistry over the tropical forest  
3. Mitchell Thayer, Formaldehyde and glyoxal measurements as tracers of oxidation chemistry in the Amazon basin  
4. Julio Tota, BVOC fluxes emitted by Tapajos National Forest in Amazonia, Brazil  
5. Daniela Wimmer, Ground based sub-3 nm aerosol and ion measurements during dry season within GoAmazon2014/5  
6. Chongai Kuang, Measurements of the aerosol size distribution down to 1 nm to investigate aerosol nucleation and initial growth during GoAmazon2014/5  
7. Francisco Miranda, Occurrence of downdrafts and its influence on the variation of scalars above and within Amazonian forest at the Experimental Site of Cuieiras, Manaus-AM.  
8. Edilane Santos, Occurrence of chaotic attractors on the Amazon forest  
9. Eliane Alves, Observations and simulations of seasonal changes in isoprene emissions from primary forest in central Amazonia  
10. Luciana Vieira, Regional differences in the intra-annual and interannual variability of forest and climatological parameters in the central Amazon region  
11. Vinicius Fernandes, Carbon and energy: source and sink for isoprene synthesis  
12. Kolby Jardine, Integration of C1 and C2,3 metabolism in trees  
13. Jorge Saturno, Black carbon measurements at T0a ATTO: Seasonal variation during GoAmazon2014/5  
14. Rafael Stern, Aerosol mass spectrometry of biogenic aerosols in Amazonia  
15. Bettina Weber, The epiphytic cryptogams’ role as source of bioaerosols and trace gases
16. Paulo Castillo, Observations of black/brown carbon concentrations in the Amazon using the aethalometer and SP2
17. Glauber Cirino, Black carbon, carbon monoxide, and particle number signatures from the Manaus plume during GoAmazon2014/15 at T2 and T3
18. Adan Medeiros, Effects of fuel switching on air quality in a tropical environment
19. Hannah Upton, A comparison of convective system properties upwind and downwind of the Manaus pollution plume
20. Suzane de Sa, Inter-season comparison of composition and sources of fine mode aerosol particles observed at T3: a mass spectrometric perspective
22. Rebecca Wernis, Characterizing the chemical complexity of semi-volatile organic compounds from biomass burning in Amazonia
23. Rodrigo Souza, Monitoring gaseous pollutants at T1 Manaus and T3 Manacapuru during GoAmazon2014/5 IOPs
24. Ricardo Godoi, Aerosol and gaseous analysis
25. Mary Alice Upshur, Sum-frequency-generation (SFG) spectroscopy of organic particles collected during IOP2 of GoAmazon2014/5
26. Casey Burleyson, Spatial and temporal context for the diurnal cycle of convection near Manaus, Brazil
27. Bruno Takeshi, GoAmazon2014/5: A T3 logistics overview

Parallel 1
Regional & Global Climate Modeling, Maxwell-Dworkin 119
Chairs: Tercio Ambrizzi and Rong Fu
15:30 Tercio Ambrizzi, Mesoscale convective systems over the Amazon Region during GoAmazon2014/5
15:45 Zhe Feng, Diurnal cycle of convection over Amazon: modulation by land-surface heterogeneity and cold pools
16:00 Rong Fu, Using GoAmazon2014/5 data to clarify the influence of aerosols on shallow and deep convection and dry-to-wet season transition
16:15 C. Roberto, Mechoso, Multi-Scale Processes in Amazonian Convection
16:30 - 17:30 Discussion with focus on publications

Parallel 2
Production of New Particles and Characterization of Small Particles, MaxwellDworkinG115
Chairs: James Smith and Luciana Rizzo
15:30 Saewung Kim, Hydroxyl and sulfuric acid observations
15:45 Luciana Rizzo, Characterization of new particle formation events in the outflow of the Manaus plume
16:00 James Smith, What are GoAmazon2014/5 measurements telling us about the sources of ultrafine aerosol particles in the Amazon?
16:15 Jian Wang, Microphysics of Amazonian aerosol under pristine condition and the impact from the Manaus urban plume observed during GoAmazon2014/5
16:15 - 17:00 Discussion with focus on publications
17:00 Group Photo
Tuesday, May 19
Maxwell-Dworkin G115

Microscale Meteorology and Related Effects
*Chairs: Gilberto Fisch and Michael Jensen*

9:00  Cléo Dias Júnior, LES applied to analyze the turbulent flow organization above Amazon forest
9:15  Gilberto Fisch, The atmospheric boundary layer characteristics during the GoAmazon2014/5 IOPs
9:30  Gabriel Katul, The structure of turbulence in a Brazilian rainforest and its effect on ultra-fine particle dry deposition onto vegetation
9:45  Tobias Gerken, Air chemistry within and above a rainforest canopy in central Amazonian
10:00 Michael Jensen, An examination of the relationships between cloud characteristics and atmospheric thermodynamics during GoAmazon2014/5

10:15 - 11:00 Discussion with focus on publications

11:00 - 11:15 **Break**

Terrestrial Ecosystems
*Chairs: Kolby Jardine and Antonio Manzi*

11:15  Laura Borma, The challenge in determining the spatial and temporal variability of soil moisture in the Amazon basin
11:30  Giordane Martins, Seasonality of leaf physiology in an Amazon rain forest: causes and consequences
11:45  Ana Yanez, Diel and seasonal changes of biogenic volatile organic compounds within and above an Amazonian rainforest site
12:00  Tanya Debora, Isoprene, Monoterpene and methanol measurements bellow and inside the canopy: studying the relationship between these compounds emissions and meteorology variables
12:15  Sabrina Garcia, Leaf isoprene biosynthesis from internal recycling of respiratory and photorespiratory CO₂

12:15 - 13:00 Discussion with focus on publications

13:00 - 14:00 **Lunch** (provided), Maxwell-Dworkin Ground Floor Lobby
Aerosol Characterization in Clean Conditions

Chairs: Christopher Pöhlker and Theotonio Pauliquevis

14:00 Christopher Pöhlker, Aerosol studies at the remote T0a ATTO site during GoAmazon2014/5: Data overview and focal points of analysis
14:15 Samara Carbone, Characterization of submicron secondary aerosol in the amazon forest at T0a ATTO
14:30 Mira Kruger, Cloud condensation nuclei (CCN) measurements with the HALO aircraft during ACRIDICON-CHUVA and long-term CCN measurements at T0a ATTO
14:45 Theotonio Pauliquevis, Rainwater chemistry during IOP2 of GoAmazon2014/5
15:00 Tuukka Petaja, BAECC Highlights (“Biogenic Aerosols: Effects on Clouds and Climate”)
15:15 - 16:00 Discussion with focus on publications

16:00 - 16:15 Break

Physical Changes in Aerosols because of the Manaus Plume

Chairs: Paulo Artaxo and Jian Wang

16:30 Adam Bateman, Particle rebound and phase state in Amazonia during GoAmazon2014/5
16:45 Peter Buseck, Rebounded vs. unrebounded particles imaged by transmission electron microscopy
17:00 Ryan Thalman, Changes in aerosol hygroscopicity with increased oxidation in the atmosphere and an oxidation flow reactor during GoAmazon2014/5
17:15 Mary Gilles, Spectro-microscopy of ambient aerosol particles: results from GoAmazon2014/5
17:30 Manish Shrivastava, Modeling the formation and evolution of secondary organic aerosol as a result of anthropogenic-biogenic interactions during GoAmazon2014/5
17:45 - 18:30 Discussion with focus on publications
Wednesday, May 20
Maxwell-Dworkin G115

Clouds & Precipitation
Chairs: Luiz Machado and Courtney Schumacher

9:00  Luiz Machado, Cloud characteristics and aerosol interaction observed in GoAmazon2014/5
9:15  Rachel Albrecht, Cloud-aerosol-precipitation interactions in deep convection and cloud electrification over the Amazon
9:30  Jiwen Fan, Impacts of anthropogenic pollution on convective clouds and precipitation in downwind pristine environment
9:45  Scott Giangrande, Precipitation insights from a merged dataset of vertically pointing ARM radars and ground disdrometers during GoAmazon2014/5
10:00 Diego Gouveia, Cirrus clouds observation and instrumental intercomparison from three lidar systems operated during IOP2
10:15 - 11:00 Discussion with focus on publications

11:00 - 11:15  Break

Chemical Changes in Aerosols because of the Manaus Plume
Chairs: Scot Martin and Henrique Barbosa

11:15  Henrique Barbosa, FLEXPART forward and backward trajectories during IOP1 and IOP2 based on 625 m resolution winds from WRF simulations
11:30  Joel Brito, Submicron aerosol and trace gas composition near Manaus as observed during GoAmazon2014/5
11:45  Gabriel Isaacman-VanWertz, Factors controlling gas-particle partitioning and formation of secondary organic aerosol from isoprene oxidation
12:00  Alexander Laskin, Molecular characterization of atmospheric organic particles collected in the Amazonia
12:15  John Shilling, Gas- and particle-phase chemical composition measurements onboard the G1 research aircraft during GoAmazon2014/5
12:30 - 13:15 Discussion with focus on publications

13:15 - 14:15  Lunch (provided), Maxwell-Dworkin Ground Floor Lobby
Moving Forward on Path for Publications
14:15 - 16:15

- Status on overview manuscript of GoAmazon2014/5
- Special issue
- Readout of all planned themed publications as overviews or perspectives, plus any other known planned specialist publications
  - themes
    - Terrestrial Ecosystems
    - BVOCs and Photo-oxidation
    - Regional & Global Climate Modeling
    - Microscale Meteorology and Related Effects
    - Clouds & Precipitation
    - New Particles and Characterization of Small Particles
    - Aerosol Characterization in Clean Conditions
    - Physical and Chemical Changes in Aerosols because of the Manaus Plume
  - identify leader volunteer authors and contributing authors and data sets

Additional Notes

Side Meetings: We have reserved three rooms each day in which small groups can meet, e.g., if there is a desire for specific technical discussions. To reserve one of these rooms during a specific time window, please contact Julianna Braun (jbraun@seas.harvard.edu).

Maxwell-Dworkin Room Convention: “G” as in “G115” indicates a “Ground Floor” room. The absence of a “G”, as in “119”, indicates a room on the first floor.
**Directions**

The main meeting location is Maxwell-Dworkin G115, 29 Oxford St., Cambridge, Massachusetts. Please come to this room between 8:30 AM and 9:00 AM on Monday, May 18, to register.

http://www.seas.harvard.edu/about-seas/map-directions/getting-seas

http://www.seas.harvard.edu/sites/default/files/files/About%20SEAS/SEASMainCampusMap.pdf

http://www.harvard.edu/visitors/directions

Recommended to arrive by walking, by publication transportation, or by cab. Contact meeting organizer if you will need automobile parking.

**Restaurants**

http://www.harvardsquare.com/restaurants
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