

# CALL FOR PAPERS

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### **Second Symposium on Multi-Scale Atmospheric Predictability, 25 January 2017, Seattle, Washington**

The special one-day Symposium on Multi-Scale Atmospheric Predictability, sponsored by the American Meteorological Society, will be held on Wednesday, 25 January 2017, as part of the 97th AMS Annual Meeting in Seattle, Washington. Preliminary programs, registration, hotel, and general information will be posted on the AMS website (<http://www.ametsoc.org/meet/annual/>) in late September 2016.

With ever increasing computing resources, weather and climate prediction models have seen considerable improvements over the years through the use of increasingly fine resolutions with more accurate physics while ingesting more observations with increasingly advanced data assimilation techniques. Global convection-permitting models that seamlessly integrate weather and climate predictions from convective, mesoscale and synoptic to seasonal and intraseasonal scales are now within sight. In the meantime, the demands and expectations for more accurate forecasts at all scales are ever increasing.

Through a mix of invited and contributed presentations, this special one-day symposium solicits papers on recent progress and challenges in our current understanding of both the practical and intrinsic aspects of multi-scale atmospheric predictability for various weather and climate phenomena, including tornadic thunderstorms, mesoscale convective vortices, tropical cyclones, winter snowstorms, flooding, heat waves, droughts, MJOs, monsoons and ENSOs. Practical predictability refers to the current capability of a forecast system or agency under best practice given state-of-the-art models with

state-of-the-art initial and boundary conditions. Intrinsic predictability refers to the limit of prediction at different temporal and spatial scales given nearly perfect initial conditions and nearly perfect forecast models. Understanding the limits of intrinsic predictability is crucial in setting expectations and priorities for advancing deterministic forecasting (through better model, observing network and data assimilation) and in providing guidance on the design of advanced probabilistic and ensemble prediction.

The \$95 abstract fee includes the submission of your abstract, the posting of your extended abstract, and the uploading and recording of your presentation which will be archived on the AMS website. Please submit your abstract electronically by 1 August 2016 (refer to the AMS webpage at [http://www.ametsoc.org/meet/online\\_submit.html](http://www.ametsoc.org/meet/online_submit.html)). The abstract fee (payable by credit card or purchase order) is charged at the time of submission (refundable only if abstract is not accepted).

Authors of accepted presentations will be notified via e-mail by late September 2016. All extended abstracts are to be submitted electronically and will be available online. Instructions for formatting extended abstracts will be posted on the AMS website. Authors have the option to submit manuscripts (up to 10 MB) electronically by 27 February 2017. All abstracts, extended abstracts, and presentations will be available on the AMS website at no cost.

For additional information please contact co-chairs, Fuqing Zhang, Penn State University (tel.: 814-865-0470; e-mail: [fzhang@psu.edu](mailto:fzhang@psu.edu)), and Roberto Buizza, European Centre for Medium-Range Weather Forecasts (tel.: +44-118-9499653; e-mail: [roberto.buizza@ecmwf.int](mailto:roberto.buizza@ecmwf.int)). (8/16)

## CALL FOR PAPERS

### **21st Conference on Atmospheric and Oceanic Fluid Dynamics, 26–30 June 2017, Portland, Oregon**

The 21st Conference on Atmospheric and Oceanic Fluid, sponsored by the American Meteorological Society and organized by the AMS Committee on Atmospheric and Oceanic Fluid Dynamics, will be held 26–30 June 2017, jointly with the 19th Conference on Middle Atmosphere at the Portland Marriott Downtown Waterfront in Portland, OR. A preliminary program as well as registration, hotel, and general information will be posted on the AMS website (<http://www.ametsoc.org>) by early April 2017.

Papers are solicited in all areas of atmospheric and oceanic fluid dynamics spanning theory, observations, and modeling. We especially welcome papers describing idealized or process-based modeling studies. The AOFD committee would like to highlight three special sessions:

- Planetary Atmospheres and Oceans, including all aspects of fluid dynamics on planetary bodies other than Earth;
- Dynamics of Past and Future Climates, with a particular emphasis on conceptual models of changes in Earth's climate
- Ocean Submesoscale Dynamics

A full list of proposed sessions will be provided on the meeting website; the final session topics will be based on the number and topics of abstracts received.

We would also like to draw attention to two joint sessions with the Conference on Middle Atmosphere:

- Troposphere–Stratosphere Coupling
- Transport and Mixing.

For the former, abstracts exploring the coupling between the middle atmosphere and troposphere with the ocean are especially encouraged. Transport and mixing is an area where recent advances in our understanding of chemical and age transport in the middle atmosphere potentially connect with advances in chemical transport in the troposphere and biogeochemical transport in the oceans.

The deadline for abstract submission is 1 March 2017 (refer to the AMS webpage at [http://www.ametsoc.org/meet/online\\_submit.html](http://www.ametsoc.org/meet/online_submit.html)). An abstract fee of \$95 (payable by credit card or purchase order) is charged at the time of submission (refundable only if abstract is not accepted). The abstract fee includes the submission of your abstract, the posting of your extended abstract, and the uploading and recording of your presentation, which will be archived on the AMS website. Authors of accepted presentations will be notified via e-mail by 10 April 2017. All extended abstracts are to be submitted electronically and will be available online. Instructions for formatting extended abstracts will be posted on the AMS website. Authors have the option to submit manuscripts (up to 10 MB) electronically by 26 July 2017. All abstracts, extended abstracts and presentations will be available on the AMS website at no cost.

The AOFD Committee of the American Meteorological Society (AMS) is proud to award Best Student Prizes at the 21st Conference on Atmospheric and Oceanic Fluid Dynamics. These awards recognize outstanding student contributions based on an evaluation of the oral or poster presentation; students should indicate they want to be considered for such awards at the time of abstract submission. Limited financial support is available for student participants. To apply, students should

prepare a short written statement (no more than one page) declaring their financial need and circumstance, relevance of their research to the conference, and their background; a copy of the meeting abstract should also be provided. Applications should be sent in pdf format via e-mail to Ricky Sidla (e-mail: [rsidla@ametsoc.org](mailto:rsidla@ametsoc.org)). Awardees may not receive any concurrent travel support from the AMS (e.g., an AMS travel grant). The selected students will be reimbursed by AMS (Ricky Sidla; e-mail: [rsidla@ametsoc.org](mailto:rsidla@ametsoc.org)) following the meeting with the proper receipts. Applications will be accepted through 1 March 2017 and all applicants will be notified of their application status on or before 1 May 2017.

For additional information regarding the meeting, please contact one of the program chairpersons: Gang Chen, Department of Atmospheric and Oceanic Sciences, University of California–Los Angeles (e-mail: [gchenpu@ucla.edu](mailto:gchenpu@ucla.edu); tel.: 310-206-9956); Juliana Dias, NOAA Earth System Research Laboratory, Physical Sciences Division, Boulder, Colorado (e-mail: [juliana.dias@noaa.gov](mailto:juliana.dias@noaa.gov); tel.: 303-497-7235); Shafer Smith, Department of Mathematics, Courant Institute of Mathematical Sciences, New York University, New York, NY (e-mail: [shafer@cims.nyu.edu](mailto:shafer@cims.nyu.edu); tel.: 212-998-3176); or Andrew Thompson, Department of Environmental Science and Engineering, California Institute of Technology, Pasadena, CA (e-mail: [andrewt@caltech.edu](mailto:andrewt@caltech.edu); tel.: 626-395-8345). (8/16)

## CALL FOR PAPERS

### 19th Conference on Middle Atmosphere, 26–30 June 2017, Portland, Oregon

The 19th Conference on Middle Atmosphere, sponsored by the

American Meteorological Society and organized by the AMS Committee on Middle Atmosphere, will be held 26–30 June 2017, jointly with the 21st Conference on Atmospheric and Oceanic Fluid at the Portland Marriott Downtown Waterfront in Portland, OR. A preliminary program as well as registration, hotel, and general information will be posted on the AMS website (<http://www.ametsoc.org>) by early April 2017.

The 19th Conference on the Middle Atmosphere will focus on processes in the stratosphere and mesosphere, including their interactions with tropospheric weather and climate. Conference sessions are anticipated to focus on issues of relevance to the middle atmosphere, including expected signatures of climate change in middle atmospheric physical and chemical processes. An emphasis will be on advancing understanding of processes by the use of observations in conjunction with models of varying degrees of complexity. A full list of proposed sessions will be provided on the meeting website; the final session topics will be based on the number and topics of abstracts received.

We would like to special attention to two joint sessions with the Conference on Atmospheric and Oceanic Fluid Dynamics:

- Troposphere–Stratosphere Coupling
- Transport and Mixing

For the former, abstracts exploring the coupling between the middle atmosphere and troposphere with the ocean are especially encouraged: the majority of comprehensive climate models now represent the atmosphere from the top of the stratosphere to the bottom of the ocean, opening up the potential for new phenomena and theory. Transport and mixing is an

area where recent advances in our understanding of chemical and age transport in the middle atmosphere potentially connect with advances in chemical transport in the troposphere and biogeochemical transport in the oceans. This session will provide a forum for theoreticians focused on the same problem but approaching it from varying components of the climate system.

Please submit your abstract electronically via the web by 1 March 2017 (refer to the AMS webpage at [http://www.ametsoc.org/meet/online\\_submit.html](http://www.ametsoc.org/meet/online_submit.html)). An abstract fee of \$95 (payable by credit card or purchase order) is charged at the time of submission (refundable only if abstract is not accepted). The fee includes the submission of an abstract, the posting of an extended abstract, and the recording of your presentation, to be archived on the AMS website.

We anticipate that authors of accepted presentations will be notified via e-mail by 10 April 2017. All extended abstracts are to be submitted electronically and will be available on-line via the web. Instructions for formatting extended abstracts will be posted on the AMS website. Authors have the option to submit manuscripts (up to 10 MB) electronically by 26 July 2017. All abstracts, extended abstracts and presentations will be available on the AMS website at no cost.

The Middle Atmosphere Committee is excited to award best student presentation prizes to recognize outstanding student oral and poster presentations. Students are asked at the time of the abstract submission if they want to be considered for such awards.

For additional information please contact the program chairs, Natalia Calvo (e-mail: [nataliac@fis.ucm](mailto:nataliac@fis.ucm)

.es) and Margaret Hurwitz (e-mail: [margaret.m.hurwitz@nasa.gov](mailto:margaret.m.hurwitz@nasa.gov)), or committee members Alan Plumb (e-mail: [plumb@mit.edu](mailto:plumb@mit.edu)) or Nicholas Davis (e-mail: [ndcodeblue@gmail.com](mailto:ndcodeblue@gmail.com)). (8/16)

## CALL FOR PAPERS

### 38th Conference on Radar Meteorology, 28 August–1 September 2017, Chicago, IL

The 38th Conference on Radar Meteorology, sponsored by the American Meteorological Society and organized by the AMS Committee on Radar Meteorology, will be held 28 August–1 September 2017 at the Swissotel Downtown, Chicago, IL. A preliminary program, registration, hotel, and general information will be posted on the AMS website (<http://www.ametsoc.org>) by 20 June 2017. The theme for this year's conference is "At the crossroads of engineering and science: Using radar-based observations to improve our understanding of the atmosphere and advance prediction across spatial and temporal scales."

Papers for this conference are solicited on the following areas:

- New and emerging radar technology: advances in radar hardware, advances in signal/array processing, innovative applications of radar, integrating new technologies in field campaigns, polarimetric phased array radar, solid-state and pulse compression radar, heterogeneous adaptive radar networks, and innovation in education and training;
- Radar networks, quality control, processing and software: topics covering the operation of radars assuring the best quality products; novel aspects of quality control processing; and software packages, including emerging approaches

in processing and extraction of insight from radar systems.

- Quantitative precipitation estimation and hydrology: new techniques for rain accumulation estimation, error analysis, multi-sensor, and blended approaches (gauges, microwave links, and radiometer); coupling of radar estimates to hydrological models; and long-term climatologies and case studies;
- Microphysical studies with radars: radar-based or multisensor estimation of microphysical properties of cloud and precipitating ice and liquid; identification of microphysical processes in radar moments, polarimetric measurements, and radar Doppler spectra; long-term statistical studies and seasonal variation; and error structure and validation with in situ and complementary measurements.
- Organized convection and severe phenomena: studies of impactful events including multi-instrument and multi-platform retrievals (e.g., multi-Doppler), covering many scales from tornadoes and microbursts to winter events and hurricanes;
- Use of radar data for nowcasting and numerical models: nowcasting, assimilation of radar data into convective scale models, assimilation of measurements, use of radar data for convective scale model validation and microphysics improvement, combined use of radar and satellite data in NWP models, automated data quality and analysis tools for NWP models, convective-scale ensemble prediction involving radar, optimal scanning strategies, warn-on-forecast, and use of radar and wind profilers in LES scale models.

- Moving platforms—vehicle, airborne, shipborne and spaceborne: the study of atmospheric phenomena from moving platforms including manned and unmanned aircraft, current, and future spaceborne platforms and shipboard radar systems., which covers technological aspects, case studies, and ground validation exercises.
- Cloud studies using radars: observations of low reflectivity targets including clouds and drizzle, millimeter wavelength radars and synergistic observations including lidar/radar-, multiwavelength-, and spectral-based studies
- Studies of non-hydrometeorological returns: studies on non-hydrometeor returns such as biological targets, clear air, and boundary layer structure and density currents such as cold pools and frontal zones.

The \$95 abstract fee includes the submission of your abstract, the posting of your extended abstract, and the uploading and recording of your presentation, which will be archived on the AMS website.

This year some financial assistance will be made available to students attending the conference to offset the cost of registration. Interested students should contact the conference chairs Scott Ellis on submission of their abstract, and application details will be forwarded on abstract acceptance. In addition, students should visit the AMS website (<https://www.ametsoc.org/ams/index.cfm/information-for/students/ams-student-travel-grants/>) for details on travel grants for students attending and not presenting a paper.

Exhibitors are solicited to participate in the conference by purchasing AMS exhibit booth space and presenting their latest technologies and advancements. Exhibitors at this meeting will have the opportunity to submit an abstract for a tentatively planned vendor session. Limited spots are available. Interested exhibitors who have returned a signed contract to AMS should send their title, presenter contact information, and abstract text to Jenn Rosen (e-mail: [jrosen@ametsoc.org](mailto:jrosen@ametsoc.org)) by 1 May 2017.

Please submit your abstract electronically by 11 May 2017 (refer to

the AMS webpage at [http://www.ametsoc.org/meet/online\\_submit.html](http://www.ametsoc.org/meet/online_submit.html)). The abstract fee (payable by credit card or purchase order) is charged at the time of submission (refundable only if abstract is not accepted).

The best student oral presentation and poster presentation will be awarded the Spiros G. Geotis Prize. Students need to indicate their intent to participate in this competition when they submit their abstract.

Authors of accepted presentations will be notified via e-mail by 16 June 2017. All extended abstracts are to be submitted electronically and will be available online. Instructions for formatting extended abstracts will be posted on the AMS website. Authors have the option to submit manuscripts (up to 10 MB) electronically by 15 September 2017. All abstracts, extended abstracts and presentations will be available on the AMS website at no cost.

For additional information please contact the program chairpersons, Scott Collis (e-mail: [scollis@anl.gov](mailto:scollis@anl.gov)) and Scott Ellis (e-mail: [sellis@ncar.edu](mailto:sellis@ncar.edu)). (8/16)