

## Recap of the 22nd Conference on Atmospheric and Oceanic Fluid Dynamics

The 22nd Conference on Atmospheric and Oceanic Fluid Dynamics (AOFD) was held in Portland, Maine, on June 23-28, 2019. The conference received a record 305 abstract submissions, covering topics in theoretical, observational and modeling approaches to understanding the fundamental dynamics of the climates of Earth and other planets. Sessions were organized under the following topics, some returning from past conferences, as well as some new additions:

- Coupling Between Moisture, Clouds and Circulation
- Dynamics in the Polar Regions
- Equatorial Waves in the Atmosphere and Ocean
- Idealized Model Approaches to the Atmosphere and Ocean Circulation
- Mesoscale and Submesoscale Ocean Dynamics
- Multiscale Atmosphere-Ocean-Ice Interaction
- Planetary Atmospheres and Oceans
- Storm Tracks and Jets
- Theoretical Advances in AOFD
- Theory of Climate
- Tropical-Extratropical Interactions
- Waves, Mean Flows and Balance

In addition, the conference featured a few special events. The conference opened Sunday evening with a reception focused on discussing issues related to increasing diversity in the climate sciences. On Tuesday, for the second time, Isla Simpson led a Town Hall Meeting titled “Idealized Atmosphere and Ocean Configurations within CESM: Updates and Opportunity for Input on Next Steps.” On Wednesday evening, we marked the AMS Centennial with a short presentation by Penelope Maher on “Statistics from 2013 to 2017: What do participation statistics tell us about gender imbalance at AOFD?”, and an informal historical lecture on atmospheric dynamics by Isaac Held, titled “Aspects of the evolution of atmospheric general circulation theory over the past century”. Recordings of both presentations, as well as many others, can be found in the online program for the conference.

AOFD continues to recognize the importance of student contributions. Of the 305 abstracts submitted, 112 were from students who wished to be entered in the competition for best presentation. Prizes were awarded to 12 outstanding student presentations (five for oral presentations, seven for poster presentations):

### Oral

- Molly Menzel, University of Virginia, “Disconnect between Hadley Cell and Subtropical Jet Variability and Response”
- Dana Raiter, Weizmann Institute, “The Tropical Large Scale Circulation: A Lagrangian Point of View”
- Bertrand Delorme, Stanford University, “Absence of Critical Reflection of Equatorially Trapped Waves in Realistic Simulations of the Equatorial Pacific”
- Abigail Bonder, Brown University, “Frontal Formation in the Presence of Submesoscale Instabilities and Turbulence”
- Thomas Bolton, Oxford University, “Towards a Data-Driven Mesoscale Eddy Parameterisation”

## Poster

- Daniel Schmidt, University of Virginia, "Impacts of Shifting Subtropical Highs on Sea-Level Pressure and Precipitation in North America"
- Brett McKim, UCSB, "Buoyancy-Driven Entrainment in Dry Convection"
- Wanying Kang, Harvard University, "Climate on High-Obliquity Planets"
- Keren Duer, Weizmann Institute, "New Insight on Jupiter's Deep Jets Using the Juno Gravity and Magnetic Field Measurements"
- Nathaniel Tarshish, UC Berkeley, "On the Buoyant Acceleration of Thermals"
- Tristan Abbott, MIT, "How Do Changes in Convective Dynamics Impact Tropical Precipitation Extremes in a Warming World?"
- Emilien Jolly, LMD Paris, "The Impact of Polar Amplification on Mid-Latitude Rossby Waves and Cold Spells Using Idealized Numerical Modeling"

The conference committee is interested in your opinion concerning choice of topics, as well as all other issues concerning conference content and organization. We will be sending a survey shortly, and we hope you'll take the time to let us know how we can continue to improve the conference.

Conference Chairpersons:  
Juliana Dias and Shafer Smith