AMS100

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22nd Conference

on Atmospheric and Oceanic Fluid Dynamics

24-28 June 2019 Holiday Inn by the Bay Portland, ME

22nd Conference on Atmospheric and Oceanic Fluid Dynamics

24-28 June 2019

Welcome to the American Meteorological Society's 22nd Conference on Atmospheric and Oceanic Fluid Dynamics. Every two years, this meeting offers a singular opportunity for subdisciplines in the climate sciences to share their best ideas across the community. This year we received more than 300 abstracts, matching the record set for the last conference. We have maintained its single-oral-session format, ensuring that each of us is exposed to work in areas beyond our own research boundaries. Unfortunately, this also means that less than half the requests for oral presentations could be accommodated. In choosing, the committee sought to ensure quality presentations by a diverse array of speakers, with preference often given to early-career scientists, including many PhD students.

The presentations will span theoretical, observational and modeling approaches focused on understanding fundamental dynamical processes in the climates of Earth and other planets. A number of the sessions have returned from previous years, including, for example, Planetary Atmospheres and Oceans, a very popular subject introduced to AOFD in 2017. This year we have added Theory of Climate, with a particular emphasis on conceptual models and new approaches, such as the analysis of model hierarchies and the use of energetic constraints; and Multiscale Atmosphere-Ocean-Ice Interactions, with a focus on the dynamics of interactions across broad time and space scales between these constituents of the climate system.

A few special events are scheduled for the conference. The opening reception, on Sunday, is titled "Promoting diversity networking reception — all welcome". We hope to foment active conversations about how to increase diversity of all sorts at AOFD. On Tuesday, during lunch, Isla Simpson will run a town hall titled "Idealized atmosphere and ocean configurations within CESM: updates and opportunity for input on next steps". On Wednesday evening, in honor of the AMS centennial, we will have a special session dedicated to the history of atmospheric and oceanic fluid dynamics, with a lecture by Isaac Held, as well as a short presentation by Penelope Maher on analyzing gender diversity at past AOFD meetings.
We would like to bring your attention to the many people that helped organize this conference. We especially thank Jennifer Ives and Ricky Sidla, AMS Meetings Coordinators, who helped in countless ways to ensure that this meeting will be a success, and the AMS Meetings Department for their organizational and financial support. We would also like to thank the other AMS Atmospheric and Oceanic Fluid Dynamics Committee members, who contributed to the planning of this meeting.

If you have suggestions for the next AMS Atmospheric and Oceanic Fluid Dynamics meeting, please speak to any member of the committee. We'll be working in the upcoming year to set a date and venue for the next meeting, to occur in approximately two years time.

Best wishes for a successful meeting in Portland MAINE!

Conference Chairpersons: Kyle Armour, Juliana Dias, Yohai Kaspi, Shafer Smith

Other AMS Atmospheric and Oceanic Fluid Dynamics members: Elizabeth Barnes, Malte Jansen, Timothy Merlis, Tiffany Shaw, Isla Simpson, Geoffrey Vallis, Madeleine Youngs

General Information

22nd Conference on Atmospheric and Oceanic Fluid Dynamics

24-28 June 2019 **Holiday Inn by the Bay** **Portland, ME**

Organizers

The 22nd Conference on Atmospheric and Oceanic Fluid Dynamics is organized by the AMS Committee on Atmospheric and Oceanic Fluid Dynamics and hosted by the American Meteorological Society.

Connect

Conference Twitter: #2019AMSAOFD

Accommodations

Attendees were responsible for making their own hotel arrangements. A block of rooms have been reserved at the Holiday Inn by the Bay. All conference sessions will be held at The Holiday Inn by the Bay - Portland, Maine, at 88 Spring Street, Portland, Maine 04101.

Thank you for booking your sleeping room at the Holiday Inn by the Bay. In doing so, you're helping AMS maintain a strong pick-up history for future hotel contract negotiations, helping to keep registration rates as low as possible.

Registration

All attendees must register to attend the conference. At this time registration may be completed online or onsite at the AMS Registration Desk located in the Grand Ballroom Foyer. Everyone presenting and/or attending the 22nd Conference on Atmospheric and Oceanic Fluid Dynamics must register and wear a badge. If your badge has been misplaced or you did not receive one yet, please proceed to the AMS Registration desk for assistance.

Registration Hours

The AMS Registration Desk will be located in the Grand Ballroom Foyer and will be open for registration during the following hours:

Sun. 23 June:	5:00 pm - 7:00 pm
Mon. 24 June:	7:30 am - 5:00 pm
Tues. 25 June:	7:30 am - 5:00 pm
Wed. 26 June:	7:30 am - 6:00 pm
Thurs. 27 June:	7:30 am - 5:00 pm
Fri. 28 June:	7:30 am - 1:30 pm

Posters

Formal Poster Viewings will be held in Casco Bay Exhibit Hall. The set up, preview, presentation, and tear down times are as follows:

Set Up:	Form Poster Viewing Time:	Tear Down By*
Monday: Noon	Monday: 5-7:00 PM	Tuesday: 10:30 AM
Tuesday: Noon	Tuesday: 5-7:00 PM	Wednesday: 7:00 PM
Thursday: Noon	Thursday: 5-7:00 PM	Friday: 10:30 AM

* Note that AMS is not responsible for posters not removed by the tear down time. Poster Presenters are expected to stand by their poster, ready to present, during their Poster Viewing time.

Special Events

Sunday Welcome Reception

The Promoting Diversity Networking Reception will be held on Sunday, 23 June 2019 from 5:00pm-7:00pm in Connecticut/Rhode Island at the Holiday Inn by the Bay. Hors d'oeuvre and a cash bar will be available. Special thanks to CIRES their sponsorship contribution to this event!

CIRES

Social Hour

The Social Hour will be held on Wednesday, 26 June 2019 from 5:00pm-7:00pm in Connecticut/Rhode Island at the Holiday Inn by the Bay. A cash bar will be available.

Beyond the Conference

For information about local attractions, events, and restaurants in Portland, please visit the Portland CVB's website at https://www.visitportland.com/.

Professional and Respectful Conduct at AMS Meetings

Need to report unprofessional or disrespectful conduct? Email conduct@ametsoc.org or call 617-226-3965.

AMS is committed to safe and inclusive meetings for all attendees.

Harassment, intimidation, or discrimination of any kind will not be tolerated at any meeting or event associated with the meeting.

All communication should be appropriate for a professional audience including people of many different backgrounds. Be inclusive and respectful.

Those who violate the standards of professional and respectful conduct may be asked to leave the meeting immediately and without refund, may not be considered for service on AMS boards and committees, and may be subject to additional legal action.

Harassment, intimidation, or discrimination includes offensive comments and actions related to age, gender and gender identity, sexual orientation, disability, physical appearance, body size, race, religion; sexual images in public spaces; deliberate intimidation, stalking, or following; harassing photography or recording; sustained disruption of talks or other events; inappropriate physical contact; and unwelcome sexual attention.

If you are the subject of unacceptable behavior or have witnessed any such behavior, please immediately:

Notify an AMS Staff Member who is wearing a blue ribbon.

Email conduct@ametsoc.org or call 617-226-3965. All members of the AMS response team, listed below, will be alerted to the report and to ensure a timely response.

Members of the AMS response team:

Keith Seitter, Executive Director
Stephanie Armstrong, Associate Executive Director
Brian Papa, Associate Executive Director
Jen Ives, Meetings Manager
Claudia Gorski, Director of Meetings
Wendy Abshire, Education Program Director

Special Needs

It is our sincere desire to comply fully with both the letter and the spirit of the Americans with Disabilities Act of 1990 (ADA). Special housing needs should have been requested when making hotel reservations. Should you need assistance onsite, please see the Meetings Staff at the AMS Registration Desk.

Inclusivity at AMS

AMS is commited to creating an environment for meetings that "embraces diversity through the inclusion of individuals across age, gender, race, sex, nationality, ethnicity, physical ability, marital status, sexual orientation, body shape or size, gender identity and expression, socioeconomic status, and other facets of social diversity" (see: https://www.ametsoc.org/ams/index.cfm/about-ams/diversity-and-inclusion-at-ams/).

	Monday, 24 June 2019
Room	Vermont/New Hampshire
	Session 1: Coupling Between Moisture, Clouds and Circulation (Part 1)
8:30	1.1 Emanuel, K.
8:45	1.2 Merlis, T. M.
9:00	1.3 Sroka, S.
9:15	1.4 Grise, K. M.
9:30	1.5A Duffy, M. L.
9:45	1.6 Li, Z.
10:00	Coffee Break
	Session 2: Coupling Between Moisture, Clouds and Circulation (Part 2)
10:30	2.1 Singh, M. S.
10:45	2.2 Back, L.
11:00	2.3 Benedict, J. J.
11:15	2.4 Zhang, Y.
11:30	2.5 Tan, Z.
11:45	2.6 Vallis, G. K.
12:00	Lunch Break
	Session 3: Tropical-Extratropical Interactions
1:30	3.1 Staten, P. W.
1:45	3.2 Menzel, M. E.
2:00	3.3 Watt-Meyer, O.
2:15	3.4 Raiter, D.
2:30	3.5 Lee, H. I.
2:45	3.6 Tziperman, E.
3:00	Coffee Break
	Session 4: Dynamics in the Polar Regions
3:30	4.1 Meneghello, G.
3:45	4.2 Clark, J. P.
4:00	4.3 Persson, P. O. G.
4:15	4.4 Hankel, C.
4:30	4.5 Rose, B. E. J.
4:45	4.6 Henry, M.
5:00	Formal Poster Viewing
7:00	Sessions End for the Day

	Tuesday, 25 June 2019
Room	Vermont/New Hampshire
	Session 5: Equatorial Waves in the Atmosphere and Ocean
8:00	5.1 Marston, B.
8:15	5.2 Moore, D. W.
8:30	5.3 Sakaeda, N.
8:45	5.4 Delorme, B. L.
9:00	5.5A Chumakova, L.
9:15	5.7 Kiladis, G.
9:30	5.6 Hitchcock, P.
9:45	5.8 Albers, J. R.
10:00	Coffee Break
	Session 6: Idealized Model Approaches to the Atmosphere and Ocean Circulation (Part 1)
10:30	6.1 O'Gorman, P. A.
10:45	6.2 Gupta, A.
11:00	6.3 Geen, R.
11:15	6.4 Hill, S. A.
11:30	6.5 Jeevanjee, N.
11:45	6.6 Hell, M. C.
12:00	Lunch Break
12:45	Town Hall Meeting: Idealized Atmosphere and Ocean Configurations within CESM: Updates and Opportunity for Input on Next Steps
	Session 7: Idealized Model Approaches to the Atmosphere and Ocean Circulation (Part 2)
1:30	7.1 Adam, O.
1:45	7.2 Yang, L.
2:00	7.3 Kong, H.
2:15	7.4 Constantinou, N. C.
2:30	7.5 Youngs, M.
2:45	7.6 Sun, S.
3:00	Coffee Break
	Session 8: Idealized Model Approaches to the Atmosphere and Ocean Circulation (Part 3)
3:30	8.1 Cessi, P.
3:45	8.2 Souza, A.
4:00	8.3 Beaudoin, J. F.
4:15	8.4 Yang, X.
4:30	8.5 Wolfe, C. L. P.
4:45	8.6 Jones, C. S.
5:00	Formal Poster Viewing
7:00	Sessions End for the Day

	Wednesday, 26 June 2019
Room	Vermont/New Hampshire
	Session 9: Planetary Atmospheres and Oceans (Part 1)
8:00	9.1 Abbot, D.
8:15	9.2 Koll, D. D. B.
8:30	9.3 Labonté, M. P.
8:45	9.4 Thomson, S. I.
9:00	9.5 Ashkenazy, Y.
9:15	9.6 Mitchell, J. L.
9:30	9.7 Guendelman, I.
9:45	9.8 Lobo, A. H.
10:00	**Coffee Break**
	Session 10: Planetary Atmospheres and Oceans (Part 2)
10:30	10.1 Galanti, E.
10:45	10.2 Li, C.
	Session 11: Theory of Climate (Part 1)
11:00	11.1 Cronin, T. W.
11:15	11.2 Romps, D. M.
11:30	11.3 Tziperman, E.
11:45	11.4 Shaw, T. A.
12:00	**Lunch Break**
	Session 12: Theory of Climate (Part 2)
1:30	12.1 Donohoe, A.
1:45	12.2 Codron, F.
2:00	12.3 Zanna, L.
2:15	12.4 Newsom, E. R.
2:30	12.5 Thompson, A. F.
2:45	12.6 Newman, M.
3:00	**Coffee Break**
	Session 13: Multiscale Atmosphere-Ocean-Ice Interaction
3:30	13.1 Waugh, D. W.
3:45	13.2 Klocker, A.
4:00	13.3 White, R. H.
4:15	13.4 Jnglin Wills, R. C.
4:30	13.5 Todd, A.
4:45	13.6 Rogstad, S.
5:00	**Social Hour**
6:00	**AOFD History**
7:00	**Sessions End for the Day**

	Thursday, 27 June 2019
Room	Vermont/New Hampshire
	Session 15: Waves, Mean Flows and Balance
8:00	15.1 Young, W. R.
8:15	15.2 Vanneste, J.
8:30	15.3 Asselin, O.
8:45	15.4 O'Neill, M. E.
9:00	15.5 Lindgren, E. A.
9:15	15.6 Nakamura, N.
9:30	15.7 Garfinkel, C. I.
9:45	15.8 Polichtchouk, I.
10:00	Coffee Break
	Session 16: Storm Tracks and Jets (Part 1)
10:30	16.1 Chang, E. K. M.
10:45	16.2 Spengler, T.
11:00	16.3 Maher, P.
11:15	16.4 Yuval, J.
11:30	16.5 Park, M.
12:00	Lunch Break
	Session 17: Storm Tracks and Jets (Part 2)
1:30	17.1 Gerber, E. P.
1:45	17.2 Simpson, I. R.
2:00	17.3 Cope, L.
2:15	17.4 Zurita-Gotor, P.
2:30	17.5 Boljka, L.
2:45	17.6 Barpanda, P.
3:00	Coffee Break
	Session 18: Storm Tracks and Jets (Part 3)
3:30	18.1 Lutsko, N.
3:45	18.2 Narinesingh, V.
4:00	18.3 Wang, L.
4:15	18.4 Rivière, G.
4:30	18.5 Novak, L.
4:45	18.6 Hassanzadeh, P.
5:00	Formal Poster Viewing
7:00	Sessions End for the Day

	Friday, 28 June 2019
Room	Vermont/New Hampshire
	Session 19: Mesoscale and Submesoscale Ocean Dynamics (Part 1)
8:00	19.1 Wenegrat, J. O.
8:15	19.2 Callies, J.
8:30	19.3 Siegelman, L.
8:45	19.4 Bodner, A.
9:00	19.5 Crowe, M. N.
9:15	19.6 Solodoch, A.
9:30	19.7 Wagner, G. L.
9:45	19.8 Taylor, J. R.
10:00	**Coffee Break**
	Session 20: Mesoscale and Submesoscale Ocean Dynamics (Part 2)
10:30	20.1 Balwada, D.
10:45	20.2 Wortham, C. J. L.
11:00	20.3 Nadeau, L. P.
11:15	20.4 Gray, A. R.
11:30	20.5 Zhang, W.
11:45	20.6 Bolton, T.
12:00	20.7 Jansen, M. F.
12:15	20.8 Grooms, I.
12:30	**Conference Adjorns**

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Program Committee
Shafer Smith, Chair
Kyle Armour, Chair
Juliana Dias, Chair
Yohai Kaspi, Chair

AMS Committee on Atmospheric and Oceanic Fluid Dynamics
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Kyle Armour, Elizabeth A. Barnes, Juliana Dias, Malte F. Jansen, Yohai Kaspi, Timothy Merlis, Tiffany A. Shaw, Isla R. Simpson, Geoffrey K. Vallis, Madeleine K. Youngs

Sunday, June 23

5:00 P.M.–7:00 P.M.	Promoting diversity Networking Reception Sponsored by CIRES - All Welcome–Connecticut/ Rhode Island
5:00 P.M.–7:00 P.M.	Registration–Grand Ballroom Foyer

Monday, June 24

7:30 A.M.–5:00 P.M.	Registration–Grand Ballroom Foyer
10:00 A.M.–10:30 A.M.	AM Coffee Break–Connecticut/ Rhode Island
12:00 P.M.–1:30 P.M.	Lunch Break
3:00 P.M.–3:30 P.M.	PM Coffee Break–Connecticut/ Rhode Island

8:30 A.M.–10:00 A.M.
Session 1: COUPLING BETWEEN MOISTURE, CLOUDS AND CIRCULATION (PART 1) –*Vermont/ New Hampshire*

Chair: Paul A. O'Gorman, MIT Cambridge, MA

8:30 A.M.
1.1 *The Role of Turbulence in Tropical Cyclone Dynamics.* **Kerry Emanuel**, MIT Cambridge, MA

8:45 A.M.
1.2 *The Sensitivity of GCM Simulations of Tropical Cyclones to Radiation.* **Timothy M. Merlis**, McGill Univ., Montreal, Canada

9:00 A.M.
1.3 *A New Microphysics-Based Parameterization of Air-Sea Enthalpy Flux for Tropical Cyclones.* **Sydney Sroka**, MIT Cambridge, MA; K. A. Emanuel

9:15 A.M.
1.4 *Decoupling Cloud Radiative Effects and Dynamics: Does It Affect the Extratropical Storm Tracks?* **Kevin M. Grise**, Univ. of Virginia, Charlottesville, VA; B. Medeiros, J. J. Benedict, J. G. Olson

1.5 *WITHDRAWN*

9:30 A.M.
1.5A *Importance of Convergence Driven By Laplacian of Low-Level Temperature for the Response of Precipitation to Climate Change over Tropical Oceans.* **Margaret L. Duffy**, MIT Cambridge, MA; P. A. O'Gorman, L. E. Back

9:45 A.M.
1.6 *Quasi-Geostrophic Analysis of Changes in Vertical Velocities in Extratropical Precipitation Extremes.* **Ziwei Li**, MIT Cambridge, MA; P.A. O'Gorman

10:30 A.M.–12:00 P.M.
Session 2: COUPLING BETWEEN MOISTURE, CLOUDS AND CIRCULATION (PART 2) –*Vermont/ New Hampshire*

Chair: George Kiladis, NOAA, Boulder, CO

10:30 A.M.
2.1 *A Model for the Relationship Between Humidity, Instability and Precipitation in the Tropics.* **Martin S. Singh**, Monash Univ., Clayton, Australia; R. A. Warren, C. Jakob

10:45 A.M.
2.2 *Relating the Local Vertical Gross Moist Stability to the Observed Sea Surface Temperature Distribution.* **Larissa Back**, Univ. of Wisconsin, Madison, WI; M. Duffy

11:00 A.M.
2.3 *Radiative Effects of Clouds and Moisture on Subseasonal Tropical Variability.* **James J. Benedict**, Univ. of Miami, Miami, FL; A. Clement, B. Medeiros, J. Olson

11:15 A.M.
2.4 *How Tropical Convection Couples High Moist Static Energy over Land and Ocean.* **Yi Zhang**, Princeton Univ., Princeton, NJ; S. Fueglistaler

11:30 A.M.
2.5 *Quantifying the Energetic Connection between Cloud Radiative Effects and the Energy Flux Equator.* **Zhihong Tan**, The Univ. of Chicago, Chicago, IL; T. Rudic, T. A. Shaw

11:45 A.M.
2.6 *Patterns, Aggregation and Propagation in the Moist Shallow Water Equations.* **Geoffrey K. Vallis**, Univ. of Exeter, Exeter, UK; J. Penn

1:30 P.M.–3:00 P.M.
Session 3: TROPICAL-EXTRATROPICAL INTERACTIONS – *Vermont/New Hampshire*

Chair: Morgan O'Neill

1:30 P.M.
3.1 *Regional Tropical Expansion: Impacts, Attribution, and the Impacts of Eddies.* **Paul W. Staten**, Indiana Univ., Bloomington, IN; K. M. Grise, S. M. Davis, K. B. Karnauskas, N. A. Davis

1:45 P.M.
3.2 *Disconnect between Hadley Cell and Subtropical Jet Variability and Response..* **Molly E Menzel**, Johns Hopkins Univ., Baltimore, MD; D. W. Waugh, K. M. Grise

2:00 P.M.
3.3 *Hemispheric Asymmetry of Tropical Expansion Under CO_2 Forcing.* **Oliver Watt-Meyer**, Univ. of Washington, Seattle, WA; D. M. W. Frierson, Q. Fu

2:15 P.M.
3.4 *The Tropical Large Scale Circulation: A Lagrangian Point of View.* **Dana Raiter**, Weizmann Institute of Science, Rehovot, Israel; E. Galanti, Y. Kaspi

2:30 P.M.
3.5 *North Atlantic and Pacific Longitude-Origin of Atmospheric Rivers and Their Implications for East Asian Monsoon Onset.* **Hung-I Lee**, UCLA, Los Angeles, CA; J. L. Mitchell, A. K. Tripati, J. M. Lora, G. Chen, Q. Ding

2:45 P.M.
3.6 *More Frequent Sudden Stratospheric Warming Events Due to a Stronger Madden-Julian Expected in a Warmer Climate..* **Eli Tziperman**, Harvard Univ., Cambridge, MA; W. Kang

3:30 P.M.–5:00 P.M.
Session 4: DYNAMICS IN THE POLAR REGIONS – *Vermont/New Hampshire*

Chair: Andrew F. Thompson, California Institute of Technology, Pasadena, CA

3:30 P.M.
4.1 *Exploring the Role of the Ice-Ocean Governor and Mesoscale Eddies in the Equilibration of the Beaufort Gyre: Lessons from Observations.* **Gianluca Meneghello**, MIT Cambridge, MA; E. Doddridge, J. Marshall, J. Scott, J. M. Campin

3:45 P.M.
4.2 *What Drives the North Atlantic Oscillation's Surface Air Temperature and Skin Temperature Anomaly Patterns?* **Joseph P. Clark**, The Pennsylvania State Univ., Univ. Park, PA; S. B. Feldstein

4:00 P.M.
4.3 *Arctic Cyclone Interactions with Tropopause Polar Vortices, Free-Troposphere Diabatic Forcing, and the Surface.* **P. Ola G. Persson**, CIRES/Univ. of Colorado and NOAA/ESRL/Physical Sciences Division, Boulder, CO; A. Solomon, M. Shupe, G. deBoer, J. Intrieri

4:15 P.M.
4.4 *The Role of Positive Feedbacks in Abrupt Arctic Winter Sea Ice Loss in Future Warming Scenarios.* **Camille Hankel**, Harvard Univ., Cambridge, MA; E. Tziperman

4:30 P.M.
4.5 *The Vertical Structure of Arctic Climate Change: A Single-Column Model Perspective.* **Brian E. J. Rose**, SUNY, Albany, NY

4:45 P.M.
4.6 *Lapse Rate Changes Dominate Residual Polar Warming in Solar Radiation Management Experiment.* **Matthew Henry**, McGill Univ., Montreal, Canada; T. M. Merlis

5:00 P.M.–7:00 P.M.–Casco Bay Exhibit Hall
Poster Session 1: COUPLING BETWEEN MOISTURE, CLOUDS AND CIRCULATION: POSTERS

1 *Asymmetry of the Distribution of Vertical Velocities in Moist Macroturbulence.* **Matthieu Kohl**, MIT Cambridge, MA; P. A. O'Gorman, Z. Li

2 *Concerning the Coupling of Fluid Flows to Thunderstorm Electrostatics and Lightning.* **Eric C. Bruning**, Texas Tech Univ, Lubbock, TX; V. Salinas, L. Schielicke

3 *Rapid Shifts in the Boreal Spring Eastern Pacific ITCZ in the ERA5 Reanalysis.* **Alex Omar Gonzalez**, Iowa State Univ., Ames, IA

4 *Intreaseasonal Variability in Near-Global Cloud-Permitting Simulations of an Aquaplanet.* **Marat Khairoutdinov**, SUNY, Stony Brook, NY; K. A. Emanuel

5 *Roles of Dynamic Forcings and Diabatic Heating in Regional Extreme Precipitation.* **Ji Nie**, Peking Univ., Beijing, China; B. Fan

6 *Three Dimensional Analysis of the Madden Julian Oscillation Propagation Mechanism.* **Andrew Berrington**, Univ. of Oklahoma, Norman, OK; N. Sakaeda

7 *A Linear Stability Analysis of Two-Layer Moist Convection with Application to Radiation Fog.* **Hao Fu**, Stanford Univ., Stanford, CA

8 *Sensitivity of Tropical Cyclone Formation Rate to Surface Warming in Idealised Numerical Simulations.* **Hamish A. Ramsay**, CSIRO, Aspendale, Australia; M. S. Singh, D. R. Chavas

9 *A Mechanism for the Maintenance of Sharp Tropical Margins.* **Hirohiko Masunaga**, Nagoya Univ., Nagoya, Japan; B. Mapes

10 *Understanding Effects of Diurnal Cycle Mode Intensification on Warm Season Precipitation Trends over the U.S. Corn Belt.* **Amanda S. Black**, CSIRO, Hobart, Australia; T. C. Chen

11 *Entrainment, Convective Heating, and Self-Aggregation.* **Da Yang**, Univ. of California, Davis, Davis, CA

12 *The Basic Effect of Cloud Radiative Effects on Tropical Sea-Surface Temperature Variability.* **Ying Li**, Colorado State Univ., Fort Collins, CO; D. W. J. Thompson

13 *Convective Life Cycles during TOGA Coare : A Dynamical System Perspective.* **Vijit Maithel**, Univ. of Wisconsin-Madison, Madison, WI; L. Back

14 *A Conceptual Model of the Climate Change Response in Stratocumulus-Topped Boundary Layers.* **Clare E. Singer**, California Institute of Technology, Pasadena, CA; K. L. Hui, T. Schneider

15 *Large-Scale Tropical Dynamics Enable Microphysical Invigoration of Convection.* **Tristan H. Abbott**, MIT Cambridge, MA; T. W. Cronin

16 *Anthropogenic Impacts on Hydrologic Cycle Extremes As Mediated By the General Circulation and Synoptic-Scale Eddies.* **Samuel J. Smith**, Indiana Univ., Bloomington, IN; P. W. Staten, J. Lu

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL
Poster Session 2: DYNAMICS IN THE POLAR REGIONS: POSTERS

17 *The Response of the Polar Vortex to Tropospheric Temperature Eddies in an Idealized General Circulation Model.* **Thomas S. Ehrmann**, Cornell Univ., Ithaca, NY

18 *Dynamical Elliptical Diagnostics of the Antarctic Polar Vortex.* **Márton Mester**, Univ. College London, London, UK; G. Esler

19 *Barotropic Topographic Control of the Antarctic Cirumpolar Current.* **Ryan D. Patmore**, British Antarctic Survey, Cambridge, UK; P. R. Holland, D. R. Munday, A. C. Naviera Garabato, D. P. Stevens, M. P. Meredith

20 *Understanding the Relationship between Stratospheric Polar Vortex Disturbances and Lower Tropospheric Cold-Air Outbreaks.* **Stephen J. Colucci**, Cornell Univ., Ithaca, NY; T. S. Ehrmann, E. Beys, T. A. O'Connor, L. R. Kee

21 *Geometric Controls on Access of Warm Ocean Waters to Greenland's Fjords.* **Ken X. Zhao**, Univ. of California, Los Angeles, CA; A. L. Stewart, J. C. McWilliams

22 *Assessing the Information Potency of OSNAP Mooring Data in the Arctic and Subpolar Gyre State Estimate.* **Helen Pillar**, Univ. of Texas at Austin, Austin, TX; A. Nguyen, P. Heimbach, F. Li, M. S. Lozier, A. Bigdeli, V. Ocana, N. Loose

23 *The Relationship of the North Atlantic Oscillation's Vertical Temperature Structure and Water Budget to the Surface Downward Longwave Radiation Anomaly Pattern.* **Joseph P. Clark**, The Pennsylvania State Univ., Univ. Park, PA; S. B. Feldstein

24 *An Examination of the Downward Influence of SSWs Using an Imposed High-Latitude Stratospheric Warming.* **Ian White**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; C. I. Garfinkel, E. P. Gerber, M. Jucker

25 *Understanding the Different Strength of Transient Arctic Amplification between CESM1-CAM4 and CESM1-CAM5.* **Zeyuan Hu**, Harvard Univ., Cambridge, MA; L. Wang, Z. Kuang

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL
Poster Session 3: EQUATORIAL WAVES IN THE ATMOSPHERE AND OCEAN: POSTERS

26 *Ageostrophic Instability and the Qbo-MJO Connection.* **Jonathan L. Mitchell**, Univ. of California, Los Angeles, CA; C. Jones

27 *Mechanics of the MJO in Cloud-Resolving Simulations with Parameterized Gill Dynamics.* **Shuguang Wang**, Columbia Univ., New York, NY

28 *The Case for a Resilient Quasi-Biennial Oscillation.* **Aaron L. Match**, Princeton Univ., Princeton, NJ; S. Fueglistaler

29 *The Madden-Julian Oscillation and Global Mean Easterly Winds.* **Stipo Sentic**, New Mexico Institute of Mining and Technology, Socorro, NM; Z. Stone, D. J. Raymond

30 *Idealized Modeling of Westerly Wind Bursts.* **Minmin Fu**, Harvard Univ., Cambridge, MA; E. Tziperman

31 *Equatorial Waves in Moist Convection on a Shallow Earth.* **Josef Schröttle**, Tel Aviv Univ., Tel Aviv, Israel; N. Harnik

32 *The Kelvin and Mixed Rossby Gravity Waves on the Spherical Earth.* **Chaim I. Garfinkel**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; O. Shamir, I. Fouxon, N. Paldor

33 *Extracting Filtered Characteristics of Short Time Series.* **Maria Gehne**, CIRES/Univ. of Colorado and NOAA, Boulder, CO; J. Dias, G. Kiladis

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL
Poster Session 4: TROPICAL-EXTRATROPICAL INTERACTIONS: POSTERS

34 *The Salience of Nonlinearities in the Boreal Winter Response to ENSO.* **Chaim I. Garfinkel**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; I. Weinberger, I. White, L. D. Oman

35 *Coupled Interannual Variability of the Hadley and Ferrel Cells.* **Pablo Zurita-Gotor**, Universidad Complutense, Madrid, Spain

36 *Understanding the Effect of the Madden-Julian Oscillation on the North Atlantic Oscillation Using Idealized Numerical Experiments.* **Gwendal Rivière**, LMD, Paris, France; S. Fromang

37 *Cross-Equatorial Wave Propagation over the Pacific.* **Martin Jucker**, Univ. of New South Wales and ARC Centre of Excellence for Climate Extremes, Kensington, Australia; J. P. Evans

38 *Dynamics of Zonal Wave 3 Circulation over the Southern Hemisphere in a Warming World.* **Rishav Goyal**, Univ. of New South Wales, Sydney, Australia; M. Jucker, A. Sen Gupta, M. England

39 *Impacts of Shifting Subtropical Highs on Sea-Level Pressure and Precipitation in North America.* **Daniel F. Schmidt**, Univ. of Virginia, Charlottesville, VA; K. M. Grise

40 *Pacific Decadal Variability and Recent Tropical Expansion.* **Michael Rollings**, McGill Univ., Montreal, Canada; T. M. Merlis

41 *An Atmospheric Teleconnection Associated with Enhanced Precipitation over the Southwestern Tropical Indian Ocean and Its Impacts on Asian Winter Climate Changes.* **Qigang Wu**, Fudan Univ., Shanghai, China

42 *Seasonal-to-Interannual Response of Southern Ocean Mixed Layer Depth to the Southern Annular Mode from a Global 1/10° Ocean Model.* **Qian Li**, Univ. of New South Wales, Sydney, Australia; S. Lee, M. England, J. McClean

43 *The Longitudinally Dependent Hadley Circulation - Clustering its Seasonal and Interannual Variability.* **Eli Galanti**, Weizmann Institute of Science, Rehovot, Israel; D. Raiter, E. Tziperman, Y. Kaspi

44 *A Priori Identification of Skillful Subseaonal Forecasts.* **John R. Albers**, NOAA, Boulder, CO; M. Newman

45 *On the Remote Impact of Observed Southern Ocean Cooling.* **Xiyue Zhang**, NCAR, Boulder, CO; C. Deser

46 *Zonally Symmetric Variability in the Tropics: A Tropical Annular Mode?.* **Kevin DallaSanta**, Courant Institute of Mathematical Sciences, New York Univ., New York, NY; E. P. Gerber

Tuesday, June 25

7:30 A.M.–5:00 P.M.	Registration–Grand Ballroom Foyer
10:00 A.M.–10:30 A.M.	AM Coffee Break–Connecticut/ Rhode Island
12:00 P.M.–1:30 P.M.	Lunch Break
3:00 P.M.–3:30 P.M.	PM Coffee Break–Connecticut/ Rhode Island

8:00 A.M.–10:00 A.M.
Session 5: EQUATORIAL WAVES IN THE ATMOSPHERE AND OCEAN –*Vermont/New Hampshire*

Chair: Maria Gehne, ESRL, Boulder, CO

8:00 A.M.
5.1 *Driven and Damped Equatorial Waves of Topological Origin.* **Brad Marston**, Brown Univ., Providence, RI

8:15 A.M.
5.2 *Partition of Intermediate Frequency Incident Equatorial Kelvin and Yanai Wave Energy at an Eastern Coastal Boundary Which Is Not Perpendicular to the Equator..* **Dennis Wilson Moore**, Univ. of Washington, Seattle, WA; H. G. Hristova, T. S. Durland, J. P. McCreary Jr.

8:30 A.M.
5.3 *The Diurnal Cycle of Rainfall and Convectively-Coupled Equatorial Waves over the Maritime Continent.* **Naoko Sakaeda**, Univ. of Oklahoma, Norman, OK; G. Kiladis, J. Dias

8:45 A.M.
5.4 *Absence of Critical Reflection of Equatorially Trapped Waves in Realistic Simulations of the Equatorial Pacific.* **Bertrand L. Delorme**, Stanford Univ., Stanford, CA; L. N. Thomas

9:00 A.M.
5.5A *Leaky Equatorial Waves.* **Lyubov Chumakova**, Univ. of Edinburgh, Edinburgh, UK

9:15 A.M.
5.7 *Vertical Dependence of the Scale and Structure of Stratospheric Equatorial Waves in Various Reanalysis Datasets.* **George Kiladis**, NOAA, Boulder, CO; J. R. Albers

9:30 A.M.
5.6 *Non-Radiative Dissipation of Stratospheric Kelvin Waves.* **Peter Hitchcock**, Cornell Univ., Ithaca, NY; W. J. Randel, T. Birner

9:45 A.M.
5.8 *Impacts of Damping and Vertical Resolution on Stratospheric Equatorial Wave Signals in Reanalysis Data.* **John R. Albers**, Univ. of Colorado Boulder, Boulder, CO; G. N. Kiladis

10:30 A.M.–12:00 P.M.
Session 6: IDEALIZED MODEL APPROACHES TO THE ATMOSPHERE AND OCEAN CIRCULATION (PART 1) –*VERMONT/NEW HAMPSHIRE*

Chair: John R. Albers

10:30 A.M.
6.1 *Potential of Machine Learning for Parameterization of Moist Convection and for Diagnostics of the Interaction between Convection and the Large-Scale Environment.* **Paul A. O'Gorman**, MIT Cambridge, MA; J. G. Dwyer, J. Yuval

10:45 A.M.
6.2 *The Circulation of the Upper-Troposphere and Lower-Stratosphere: A Stiff Test for the Comparison of Dynamical Cores.* **Aman Gupta**, Courant Institute of Mathematical Sciences, New York, NY; E. P. Gerber

11:00 A.M.
6.3 *A Simple Model for the Sequential Onset of the Asian Monsoons.* **Ruth Geen**, Univ. of Exeter, Exeter, UK; F. H. Lambert, G. K. Vallis

11:15 A.M.
6.4 *Modernizing Axisymmetric Hadley Cell and Monsoon Theory.* **Spencer A Hill**, UCLA, Los Angeles, CA; S. Bordoni, J. L. Mitchell

11:30 A.M.
6.5 *The Nature of Entrainment in Dry Convection.* **Nadir Jeevanjee**, Princeton Univ., Princeton, NJ; D. Lecoanet

11:45 A.M.
6.6 *Atmospheric Circulation Response to Episodic Arctic Warming in an Idealized Model.* **Momme C. Hell**, SIO, La Jolla, CA; T. Schneider, C. Li

12:45 P.M.–1:30 P.M.
Town Hall Meeting: TOWN HALL MEETING: IDEALIZED ATMOSPHERE AND OCEAN CONFIGURATIONS WITHIN CESM: UPDATES AND OPPORTUNITY FOR INPUT ON NEXT STEPS – *VERMONT/NEW HAMPSHIRE*

Chair: Isla R. Simpson, NCAR, Boulder, CO

1:30 P.M.–3:00 P.M.
Session 7: IDEALIZED MODEL APPROACHES TO THE ATMOSPHERE AND OCEAN CIRCULATION (PART 2) –*VERMONT/NEW HAMPSHIRE*

Chair: C Spencer Jones, LDEO, New York, NY

1:30 P.M.
7.1 *Dynamics of the ITCZ and the Wind-Driven Tropical Circulation in an Aquaplanet with Idealized Ekman Heat Transport.* **Ori Adam**, Hebrew Univ., Jerusalem, Israel; H. afargan

1:45 P.M.
7.2 *Impacts of Lee Waves on the Southern Ocean Circulation and its Sensitivity to Wind Stress.* **Luwei Yang**, Univ. of Tasmania, Hobart, Australia; M. Nikurashin, A. M. Hogg, B. Sloyan

2:00 P.M.
7.3 *The Impact of Topography and Eddy Parameterization on the Simulated Southern Ocean Response to Changes in Surface Wind Stress.* **Hailu Kong**, The Univ. of Chicago, Chicago, IL; M. F. Jansen

2:15 P.M.
7.4 *Barotropic Versus Baroclinic Eddy Saturation: Implications to Southern Ocean Dynamics.* **Navid C. Constantinou**, Australian National Univ., Acton, Australia; A. M. Hogg

2:30 P.M.
7.5 *The Role of Residual Overturning on the Sensitivity of Southern Ocean Isopycnal Slopes to Changes in Wind.* **Madeleine Youngs**, MIT, Cambrige, MA; G. R. Flierl, R. Ferrari

2:45 P.M.
7.6 *What Sets the Depth of the Atlantic Meridional Overturning Circulation?* **Shantong Sun**, SIO/Univ. Of California, San Diego, CA; I. Eisenman, L. Zanna, A. L. Stewart

3:30 P.M.–5:00 P.M.
Session 8: IDEALIZED MODEL APPROACHES TO THE ATMOSPHERE AND OCEAN CIRCULATION (PART 3) –*VERMONT/NEW HAMPSHIRE*

Chair: Laure Zanna, Univ. of Oxford, Oxford, UK

3:30 P.M.
8.1 *Global Control on Bering Strait Transport.* **Paola Cessi**, UCSD, La Jolla, CA

3:45 P.M.
8.2 *A Novel Method for Ocean Boundary Layer Parameterization.* **Andre Souza**, MIT, Cambridge, MA; G. L. Wagner, R. Ferrari, G. R. Flierl

4:00 P.M.
8.3 *Impact of a Large Scale Circumpolar Current Meander on the Meridional Overturning Circulation.* **Jean-Francois Beaudoin**, UQAR/ISMER, Rimouski, Canada; L. P. Nadeau, M. F. Jansen, R. Ferrari

4:15 P.M.
8.4 *Dynamics of Deep Eastern Boundary Currents.* **Xiaoting Yang**, Harvard Univ., Cambridge, MA; E. Tziperman, K. Speer

4:30 P.M.
8.5 *Eastern Boundary Currents and Overturning in Buoyancy-Driven Basins.* **Christopher L.P. Wolfe**, SUNY, Stony Brook, NY, NY; S. Bire

4:45 P.M.
8.6 *Isopycnal Mixing and Ventilation of the Deep Ocean.* **C Spencer Jones**, LDEO, New York, NY; R. P. Abernathey

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL
Poster Session 5: IDEALIZED MODEL APPROACHES TO THE ATMOSPHERE AND OCEAN CIRCULATION: POSTERS

47 *Predicting Global Surface Currents from Satellite Observable Quantities Using Machine Learning.* **Anirban Sinha**, California Institute of Technology, Pasadena, CA; R. P. Abernathey

48 *Dynamical Aquaplanet Experiments with Uniform Thermal Forcing: Implications for Tropical Cyclone Genesis and Size.* **Daniel R. Chavas**, Purdue Univ., West Lafayette, IN; K. A. Reed

49 *A New Process-Based Vertical Advection/Diffusion Theoretical Model of Ocean Heat Uptake.* **Gabriel Wolf**, Univ. of Reading, Reading, UK

50 *Mechanisms of Stationary Rossby Wave Change in Comprehensive and Idealized GCMs.* **Robert C Jnglin Wills**, Univ. of Washington, Seattle, WA; T. Schneider, R. H. White, X. J. Levine

51 *Sudden Stratospheric Warming Formation in an Idealized GCM Using Three Types of Tropospheric Forcing.* **Erik Anders Lindgren**, Stanford Univ., Stanford, CA; A. Sheshadri, R. A. Plumb

52 *Buoyancy-Driven Entrainment in Dry Convection.* **Brett A. McKim**, Univ. of California, Santa Barbara, Santa Barbara, CA; N. Jeevanjee, D. Lecoanet

53 *Spontaneous Tropical Cyclogenesis in the Absence of Surface-Flux and Radiative feedbacks.* **Argel Ramírez-Reyes**, Univ. of California at Davis, Davis, CA

54 *Semi-Dry, Near-Dry, and Dry Circulation Responses to Increased CO_2.* **Zhihong Tan**, The Univ. of Chicago, Chicago, IL; T. A. Shaw

55 *A Toy Model for the Deep Ocean Overturning Circulation.* **Malte F. Jansen**, The Univ. of Chicago, Chicago, IL; L. P. Nadeau

56 *Causal Links between the Midlatitude Circulation and Surface Temperature Variability.* **Jingyuan Li**, Colorado State Univ., Fort Collins, CO; D. W. J. Thompson

57 *Connections between Climate Sensitivity and the Extratropical Circulation.* **Luke L. B. Davis**, Colorado State Univ., Fort Collins, CO; T. Birner, D. W. J. Thompson

58 *Examining the Role of Mean Meridional Circulation in Poleward Transport to the Arctic.* **Huang Yang**, The Johns Hopkins Univ., Baltimore, MD; D. W. Waugh, C. Orbe

59 *Squeeze Dispersion and the Effective Diapycnal Diffusivity of Oceanic Tracers.* **Gregory L. Wagner**, MIT, Cambridge, MA; G. R. Flierl, R. Ferrari

60 *ITCZ-MIP: Understanding Controls on ITCZ Width and How ITCZ Width Impacts Climate and Circulation.* **Oliver Watt-Meyer**, Univ. of Washington, Seattle, WA; M. P. Byrne, P. Maher, A. G. Pendergrass, M. J. Webb

61 *The Latitudinal Dependence of Tropical Cyclogenesis Frequency in an Idealized Model.* **Tsung-Lin Hsieh**, Princeton Univ., Princeton, NJ; S. T. Garner

62 *Geographic Controls of Hazardous Convective Weather Environments over North America.* **Funing Li**, Purdue Univ., West Lafayette, IN; D. R. Chavas, K. A. Reed

63 *Understanding the Inland Evolution of Hurricane Low-Level Wind Field through Idealized Numerical Simulations.* **Jie Chen**, Purdue Univ., West Lafayette, IN; D. R. Chavas

64 *The Flexible Model Framework for the UK Met Office Unified Model (FLEX-UM)..* **Penelope Maher**, Univ. of Exeter, Exeter, UK; P. Earnshaw, G. K. Vallis

65 *A Model of an Idealized Moist Atmosphere Version 2.0.* **Chaim I. Garfinkel**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; E. P. Gerber, M. Jucker, I. White

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL

Poster Session 6: PLANETARY ATMOSPHERES AND OCEANS: POSTERS

66 *The Dynamics and Transport of Mars's Annular Polar Vortex.* **Darryn W. Waugh**, The Johns Hopkins Univ., Baltimore, MD; W. J. M. Seviour, R. K. Scott

67 *New Insight on Jupiter's Deep Jets Using the Juno Gravity and Magnetic Field Measurements.* **Keren Duer**, Weizmann Institute of Science, Rehovot, Israel; E. Galanti, Y. Kaspi

68 *The Equilibration of Kelvin-Rossby Instability and Planetary Superrotation.* **Pablo Zurita-Gotor**, Universidad Complutense, Madrid, Spain; I. Held

69 *Magnetic Eddy Viscosity of Mean Shear Flows in 2D Magnetohydrodynamics: Possible Application to Gas Giants' Interiors.* **Navid Constantinou**, Australian National Univ., Acton, Australia

70 *Phase Shift of Planetary Waves on Tidally Locked Planets Around M Dwarfs.* **Shuang Wang**, Peking Univ. Dept. of Atmospheric and Oceanic Sciences, Beijing, China; J. Yang

71 *Climate on High-Obliquity Planets.* **Wanying Kang**, Harvard Univ., Cambridge, MA; E. Tziperman, M. Cai

72 *Planetary Turbulence in the Laboratory: Nonlinear Cascades from Fine-Resolution Lagrangian Trajectories.* **Carlowen Andrew Smith**, Geophysical Fluid Dynamics Institute, Tallahassee, FL; K. Speer

73 *Dust-Devil-like Vortices in the Oceanic Mixed Layer.* **Tomas Chor**, UCLA, los angeles, CA; J. C. McWilliams, M. Chamecki

74 *Atmospheric Dynamics of Slowly-Rotating Terrestrial Planets like Venus.* **G. J. Colyer**, Univ. of Exeter, Exeter, UK; G. K. Vallis

75 *How Deep Is Jupiter's Great Red Spot?.* **Yohai Kaspi**, Weizmann Institute of Science, Rehovot, Israel; E. Galanti

76 *Seasonal Climate Variability over a Wide Range of Orbital and Atmospheric Characteristics.* **Ilai Guendelman**, Weizmann Institute of Science, Rehovot, Israel; Y. Kaspi

77 *Deep Influences on Jupiter's Shallow Weather Layer.* **Stephen I. Thomson**, Univ. of Exeter, Exeter, UK; G. K. Vallis

78 *The Effect of Moisture on Cloud Formation in Terrestrial Planetary Atmospheres.* **Francisco Spaulding-Astudillo**, UCLA, Los Angeles, CA; J. L. Mitchell

79 *Barotropic Modes, Baroclinic Modes and Equivalent Depths in the Stratosphere and Troposphere.* **Yair De-Leon**, The Hebrew Univ. of Jerusalem, Jerusalem, Israel; N. Paldor, C. I. Garfinkel

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL

Poster Session 7: THEORETICAL ADVANCES IN AOFD: POSTERS

80 *Commonly Used Methods Fail to Detect Known Phase Speeds of Simulated Signals of Sea Surface Height Anomalies.* **Yair De-Leon**, The Hebrew Univ. of Jerusalem, Jerusalem, Israel; N. Paldor

81 *The Relationship between Large-Scale Flow Deformation and Mesoscale Eddy Anisotropy and Its Potential for the Parameterization of Eddy Effects.* **Danil Platonov**, Univ. of British Columbia, Vancouver, Canada; S. Waterman

82 *Infinite U(1) Symmetry of the Quasi-Linear Approximation.* **Chenyu Zhang**, Brown Univ., Providence, RI; A. Lawrence, B. Marston, P. J. Kushner

83 *Influence of Bottom Topography on Vortex Stability.* **Bowen Zhao**, Yale Univ., New Haven, CT; E. Chieusse-Gerard, G. R. Flierl

84 *Energy Decompositions for Moist Boussinesq and Anelastic Equations with Phase Changes..* **David H Marsico**, Univ. of Wisconsin-Madison, Madison, WI

85 *Eddy Diffusivity in a Homogeneous Two-Layer Qg Model with Friction Appearing with the Same Damping Strength in the Two Layers.* **Chiung-Yin Chang**, Princeton Univ., Princeton, NJ; I. M. Held

86 *Ekman Pumping Instability: A Mechanism for Secondary Eyewall Formation in Tropical Cyclones.* **Yoshiaki Miyamoto**, Keio Univ., Fujisawa, Japan; D. S. Nolan, N. Sugimoto

87 *Sea Spray at High Winds: Mechanisms of Production and Role in Heat Transfer and Surface Drag at High Winds.* **Yuliya Troitskaya**, Institute of Applied Physics RAS, Nizhny Novgorod, Russia; A. Kandaurov, D. Sergeev, O. Ermakova, M. Vdovin, D. Kozlov, S. Zilitinkevich, O. Druzhinin

88 *Reconstructing Analytic Dispersion Relations of Linear Waves from Non-Linear Simulations of a Forced Dissipated Shallow Water Model.* **Chaim I. Garfinkel**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; N. Paldor, O. Shamir

89 *Geostrophic Adjustment on the f-Plane: Continuous Initial Conditions and Boundary Effects.* **Itamar Yacoby**, The Hebrew Univ., Jerusalem, Jerusalem, Israel; H. Gildor, N. Paldor

90 *A Theoretical Framework for Understanding Multiscale Atmospheric Predictability.* **Fuqing Zhang**, Pennsylvania State Univ., State College, PA; Y. Q. Sun

91 *A New Paradigm for the Preferential Directions of Stirring and Mixing in the Ocean.* **Rémi Tailleux**, Univ. of Reading, RG6 6BB Reading, UK

92 *Investigation of Turbulence Self-Organization in a Single-Layer, Shallow-Water Model Using a Generalized Quasi-Linear Approximation and a Second-Order Closure of the Statistical State Dynamics.* **Nikolaos Bakas**, Univ. of Ioannina, Ioannina, Greece

93 *An Evaluation of Hurricane Superintensity in Axisymmetric Numerical Models.* **K.A. Emanuel**, MIT Cambridge, MA; R. Rousseau-Rizzi

94 *Spectral Energy Transfer and Third-Order Structure Functions in Atmosphere Ocean Turbulence.* **Jin-Han Xie**, New York Univ., New York, NY; O. Buhler, D. Balwada

95 *On the Buoyant Acceleration of Thermals.* **Nathaniel Tarshish**, Univ. of California, Berkeley, Berkeley, CA; N. Jeevanjee, D. Lecoanet

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL

Poster Session 8: THEORY OF CLIMATE: POSTERS

96 *Meridional Atmospheric Heat Transport Constrained by Energetics and Mediated by Large-Scale Diffusion.* **Kyle Armour**, Univ. of Washington, Seattle, WA; N. Siler, A. Donohoe, G. H. Roe

97 *Revisiting the Impact of Mountains on Stationary Waves: The Importance of the Zonal Mean Response.* **Rachel H. White**, Barcelona Supercomputing Center, Barcelona, Spain; J. M. Wallace, D. S. Battisti

98 *Vapor Buoyancy Helps to Stabilize Tropical Climate.* **Seth Seidel**, Univ. of California, Davis, CA; D. Yang

99 *Meridional Structure and Future Changes of Tropopause Height and Temperature.* **Shineng Hu**, SIO/Univ. of California, La Jolla, CA; G. K. Vallis

100 *Assess Local Forcing Mechanisms on the North Atlantic "Cold Blob".* **Laifang Li**, Duke Univ., Durham, NC; M. S. Lozier, F. Li

101 *Slantwise Convective Neutrality as a Constraint on the Position of Tropical Rainbelts.* **Martin S. Singh**, Monash Univ., Clayton, Australia

102 *The Asymmetry of Vertical Velocity in Current and Future Climate..* **Or Hadas**, Weizmann Institute of Science, Rehovot, Israel; T. Tamarin

103 *Characterizing Changes in South American Monsoon Seasonality with the Moist Static Energy Budget.* **Jane E. Smyth**, Princeton Univ., Princeton, NJ; Y. Ming

104 *Two Regimes of Atlantic Multidecadal Oscillation: Cross-basin Dependent or Atlantic-intrinsic?.* **Jianhua Lu**, Sun Yat-sen Univ., Zhuhai, China; P. Lin, Z. Yu, M. Ding, A. Hu, H. Liu

105 *Process-Specific Attribution of Atmospheric Heat Transport from Remote Diabatic Processes Using Passive Tracers.* **Robert Fajber**, Unversity of Toronto, Toronto, Canada; P. J. Kushner

106 *Mechanisms and Impacts of a Partial AMOC Recovery Under Climate Change Forcing.* **Matthew D. Thomas**, Yale Univ., New Haven, CT; A. Fedorov

107 *The Impact of Convective Entrainment on the Tropical Temperature Response to CO2 Changes.* **Osamu Miyawaki**, The Univ. of Chicago, Chicago, IL; Z. Tan, T. A. Shaw, M. F. Jansen

108 *The Role of Tropical Pacific Variability in Confounding and Constraining Radiative Feedbacks and Climate Sensitivity.* **Cristian Proistosescu**, Univ. of Washington, Seattle, WA; K. Armour, D. S. Battisti, M. F. Stuecker, R. C. Wills, A. Donohoe, Y. Dong

109 *How Do Changes in Convective Dynamics Impact Tropical Precipitation Extremes in a Warming World?.* **Tristan H. Abbott**, MIT Cambridge, MA; T. Beucler, T. W. Cronin

110 *Revisiting the Storm Track Intensity - Baroclinicity Puzzle for Cold, Icy Climates.* **Tiffany A. Shaw**, The Univ. of Chicago, Chicago, IL; Z. Tan

Wednesday, June 26

7:30 A.M.–6:00 P.M.	Registration–Grand Ballroom Foyer
10:00 A.M.–10:30 A.M.	AM Coffee Break–Connecticut/ Rhode Island
12:00 P.M.–1:30 P.M.	Lunch Break
3:00 P.M.–3:30 P.M.	PM Coffee Break–Connecticut/ Rhode Island
5:00 P.M.–6:00 P.M.	Social Hour–Connecticut/Rhode Island

8:00 A.M.–10:00 A.M.
Session 9: PLANETARY ATMOSPHERES AND OCEANS (PART 1) –*Vermont/New Hampshire*

Chair: Keren Duer, Weizmann Institute of Science, Rehovot, Israel

8:00 A.M.
9.1 *The Snowball Bifurcation on Tidally Influenced Planets.* **Dorian Abbot**, Univ. of Chicago, Chicago, IL; J. Checlair, S. Olson

8:15 A.M.
9.2 *The Effect of H2 on the Inner Edge of the Habitable Zone.* **Daniel D.B. Koll**, MIT, Cambridge, MA; T.W. Cronin

8:30 A.M.
9.3 *Atmospheric Water Cycle Changes Towards the Inner Edge of the Habitable Zone on a Tidally-Locked, Earth-like Exoplanet.* **Marie-Pier Labonté**, McGill Univ., Montreal, Canada; T. M. Merlis

8:45 A.M.
9.4 *The Effects of Gravity on the Climate and Circulation of a Terrestrial Planet.* **Stephen I. Thomson**, Univ. of Exeter, Exeter, UK; G. K. Vallis

9:00 A.M.
9.5 *Dynamics of the Global Meridional Ice Flow of Europa's Icy Shell.* **Yosef Ashkenazy**, Ben-Gurion Univ., Midreshet Ben-Gurion, Israel; R. Sayag, E. Tziperman

9:15 A.M.
9.6 *Terrestrial Planetary Atmospheres and Climate Extremes: From Earth to Titan.* **Jonathan L. Mitchell**, Univ. of California, Los Angeles, CA; S. Faulk, J. Lora, C. Milly

9:30 A.M.
9.7 *An Axisymmetric Limit for the Width of the Hadley Cell on Planets with Large Obliquity and Long Seasonality.* **Ilai Guendelman**, Weizmann Institute of Science, Rehovot, Israel; Y. Kaspi

9:45 A.M.
9.8 *Seasonal Cycles over a Broad Range of Planetary Climates.* **Ana H. Lobo**, California Institute of Technology, Pasadena, CA; S. Bordoni

10:30 A.M.–11:00 A.M.
Session 10: PLANETARY ATMOSPHERES AND OCEANS (PART 2) –*Vermont/New Hampshire*

Chair: Brian E. J. Rose, SUNY, Albany, NY

10:30 A.M.
10.1 *The Deep Winds of Jupiter and Saturn As Inferred from Recent Gravity Measurements: Similarities and Differences.* **Eli Galanti**, Weizmann Institute of Science, Rehovot, Israel; Y. Kaspi

10:45 A.M.
10.2 *Modeling of Cyclonic Vortices at the Poles of Jupiter.* **Cheng Li**, California Institute of Technology, Pasadena, CA; A. P. Ingersoll

11:00 A.M.–12:00 P.M.
Session 11: THEORY OF CLIMATE (PART 1) – *Vermont/New Hampshire*

Chair: Brian E. J. Rose, SUNY, Albany, NY

11:00 A.M.
11.1 *Surface Relative Humidity in Radiative-Convective Equilibrium.* **Timothy W. Cronin**, MIT, Cambridge, MA

11:15 A.M.
11.2 *Global Warming in RCE.* **David M. Romps**, Univ. of California, Berkeley, Berkeley, CA

11:30 A.M.
11.3 *Warming By Winter-Time High-Latitude Low Clouds: Suppression of Cold Weather Events over High Latitude Continents in Warm Climates..* **Eli Tziperman**, Harvard Univ., Cambridge, MA; Z. Hu, T.W. Cronin

11:45 A.M.
11.4 *Testing Latitudinally Dependent Explanations of the Circulation Response to Increased CO2 Using Aquaplanet Models.* **Tiffany A. Shaw**, The Univ. of Chicago, Chicago, IL; Z. Tan

1:30 P.M.–3:00 P.M.
Session 12: THEORY OF CLIMATE (PART 2) – *Vermont/New Hampshire*

Chair: Kyle Armour, Univ. of Washington, Seattle, WA

1:30 P.M.
12.1 *The Near Invariance of Meridional Heat Transport from the Last Glacial Maximum to CO_2 Quadrupling.* **Aaron Donohoe**, APL, Seattle, WA; K. Armour, D. S. Battisti, G. Roe

1:45 P.M.
12.2 *Role of the Ocean Circulation in the Climate Response to Meridional Energy Imbalances.* **Francis Codron**, Sorbonne Université, Paris, France

2:00 P.M.
12.3 *Ocean Heat Uptake Efficiency, Ocean Circulation & Transient Climate Change.* **Laure Zanna**, Univ. of Oxford, Oxford, UK; J. M. Gregory, M. Huber, A. Todd, E. R. newsom

2:15 P.M.
12.4 *Controls on Ocean Heat Uptake: A Transient Green's Function Approach.* **Emily R. Newsom**, Univ. of Oxford, Oxford, UK; L. Zanna, S. Khatiwala

2:30 P.M.
12.5 *Low-Latitude Control over the Strength and Structure of the Global Overturning Circulation.* **Andrew F. Thompson**, California Institute of Technology, Pasadena, CA; E. R. Newsom, J. Adkins

2:45 P.M.
12.6 *Characterizing Predictable Dynamics within the Tropical Pacific.* **Matthew Newman**, NOAA, Boulder, CO

3:30 P.M.–5:00 P.M.
Session 13: MULTISCALE ATMOSPHERE-OCEAN-ICE INTERACTION –*Vermont/New Hampshire*

Chair: Malte F. Jansen, The Univ. of Chicago, Chicago, IL

3:30 P.M.
13.1 *Time Scales of the Response of Southern Subtropical Oceans to Wind Stress Perturbations.* **Darryn W. Waugh**, The Johns Hopkins Univ., Baltimore, MD

3:45 P.M.
13.2 *Stommel's Demon Revisited: A New Look at Southern Ocean Ventilation.* **Andreas Klocker**, Antarctic Climate & Ecosystems Cooperative Research Centre, Hobart, Australia; C. de Lavergne, A. C. Naveira Garabato, S. R. Rintoul

4:00 P.M.
13.3 *A Tale of Two Mountain Ranges: The Remarkable Dominance of Asian Orography over North American on the Atlantic Meridional Overturning Circulation.* **Rachel H. White**, Barcelona Supercomputing Center, Barcelona, Spain; D. M. Frierson, D. S. Battisti, D. B. Bonan

4:15 P.M.
13.4 *Coupled Atmosphere-Ocean Dynamics of North Pacific Decadal Variability.* **Robert C Jnglin Wills**, Univ. of Washington, Seattle, WA; D. S. Battisti, C. Proistosescu, L. Thompson, D. L. Hartmann, K. Armour

4:30 P.M.
13.5 *Understanding the Emergence of North Atlantic Dynamic Sea Level Change.* **Alexander Todd**, Univ. of Oxford, Oxford, UK; L. Zanna, J. M. Gregory

4:45 P.M.
13.6 *Climate Feedbacks from Antarctic Ice Sheet Discharge Under High Future Carbon Emissions.* **Shaina Rogstad**, Univ. of Massachusetts Amherst, Amherst, MA; A. Condron, R. DeConto, D. Pollard

6:00 P.M.–7:00 P.M.
Session 14: AOFD HISTORY –*Vermont/New Hampshire*

Chair: Geoffrey K. Vallis, Univ. of Exeter, Exeter, UK

Thursday, June 27

7:30 A.M.–5:00 P.M.	Registration–Grand Ballroom Foyer
10:00 A.M.–10:30 A.M.	AM Coffee Break–Connecticut/ Rhode Island
12:00 P.M.–1:30 P.M.	Lunch Break
3:00 P.M.–3:30 P.M.	PM Coffee Break–Connecticut/ Rhode Island

8:00 A.M.–10:00 A.M.
Session 15: WAVES, MEAN FLOWS AND BALANCE –*Vermont/New Hampshire*

Chair: Pragallva Barpanda, The Univ. of Chicago, Chicago, IL

8:00 A.M.
15.1 *Stimulated Loss of Balance.* **William R. Young**, SIO, La Jolla, CA; C. B. Rocha, G. L. Wagner

8:15 A.M.
15.2 *Scattering of Inertia-Gravity Waves By Geostrophic Turbulence.* **Jacques Vanneste**, Univ. of Edinburgh, Edinburgh, UK; H. Kafiabad, M. A. C. Savva

8:30 A.M.
15.3 *On the Fate of Post-Storm Near-Inertial Oscillations in a Baroclinic Mesoscale Flow.* **Olivier Asselin**, SIO, La Jolla, CA; W. R. Young

8:45 A.M.
15.4 *High Latitude Inertial Waves in Axisymmetric Tropical Cyclones.* **Morgan E O'Neill**, Stanford Univ., Stanford, CA; D. R. Chavas

9:00 A.M.
15.5 *The Role of Eddy-Eddy Interactions in Sudden Stratospheric Warming Formation.* **Erik Anders Lindgren**, Stanford Univ., Stanford, CA; A. Sheshadri

9:15 A.M.
15.6 *Threshold Behaviors of the Rossby Waves and Disruption of the Jet Stream.* **Noboru Nakamura**, Univ. of Chicago, Chicago, IL

9:30 A.M.
15.7 *The Building Blocks of Northern Hemisphere Wintertime Stationary Waves.* **Chaim I. Garfinkel**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; I. White, E. P. Gerber, M. Jucker

9:45 A.M.
15.8 *Impact of Parametrized Nonorographic Gravity Wave Drag on Stratosphere-Troposphere Coupling in the Northern and Southern Hemispheres.* **Inna Polichtchouk**, ECMWF, Reading, UK; T. G. Shepherd, N. Byrne

10:30 A.M.–12:00 P.M.
Session 16: STORM TRACKS AND JETS (PART 1) – *VERMONT/NEW HAMPSHIRE*

Chair: Yohai Kaspi, Weizmann Institute of Science, Rehovot, Israel

10:30 A.M.
16.1 *Quantifying Relationship between Different Storm Track Metrics, Surface Weather Impacts, and Mean Flow Variations.* **Edmund K. M. Chang**, Stony Brook Univ., SUNY, Stony Brook, NY; A. M. W. Yau

10:45 A.M.
16.2 *Self-Maintenance of Baroclinicity by Extratropical Cyclones.* **Thomas Spengler**, Univ. of Bergen, Bergen, Norway; C. Weijenborg

11:00 A.M.
16.3 *Is the Subtropical Jet Moving Poleward?* **Penelope Maher**, Univ. of Exeter, Exeter, UK; M. E. Kelleher, P. G. Sansom, J. Methven

11:15 A.M.
16.4 *Eddy Activity Response to Global Warming-like Temperature Changes.* **Janni Yuval**, MIT, Cambridge, MA; Y. Kaspi

11:30 A.M.
16.5 *Impacts of the Planetary-Scale Eddies on the Midwinter Suppression in North Pacific Storm Track Intensity.* **Mingyu Park**, The Pennsylvania State Univ., Univ. Park, PA; S. Lee

1:30 P.M.–3:00 P.M.
Session 17: STORM TRACKS AND JETS (PART 2) – *VERMONT/NEW HAMPSHIRE*

Chair: Janni Yuval, MIT, Cambridge, MA

1:30 P.M.
17.1 *Revisiting the Tropopause-Jet Relationship in a Hierarchy of Atmospheric Models.* **Edwin P. Gerber**, Courant Institute of Mathematical Sciences, New York, NY; A. Gupta, K. DallaSanta

1:45 P.M.
17.2 *Potential Predictability of Later Winter Precipitation in Western Europe Via the Influence of Sea Surface Temperature Variability on the Atlantic Jet Stream..* **Isla R. Simpson**, NCAR, Boulder, CO; S. Yeager, K. A. McKinnon, C. Deser

2:00 P.M.
17.3 *Variability of Stochastically Forced Beta-Plane Zonal Jets.* **Laura Cope**, Univ. of Cambridge, Cambridge, UK; P. H. Haynes

2:15 P.M.
17.4 *Dynamics of Tropical Eddy Momentum Transport and Equatorial Eddy-Driven jets.* **Pablo Zurita-Gotor**, Universidad Complutense, Madrid, Spain

2:30 P.M.
17.5 *Up-Gradient Potential Vorticity Fluxes in Idealized General Circulation Model Simulations.* **Lina Boljka**, Colorado State Univ., Fort Collins, CO; T. Birner, D. W. J. Thompson

2:45 P.M.
17.6 *Surface Heat Fluxes Control the Seasonality of Zonally Symmetric Storm Tracks.* **Pragallva Barpanda**, The Univ. of Chicago, Chicago, IL; T. A. Shaw

3:30 P.M.–5:00 P.M.
Session 18: STORM TRACKS AND JETS (PART 3) – *VERMONT/NEW HAMPSHIRE*

Chair: Isla R. Simpson, NCAR, Boulder, CO

3:30 P.M.
18.1 *The Impact of Large-Scale Orography on Northern Hemisphere Winter Synoptic Temperature Variability.* **Nicholas Lutsko**, MIT, Cambridge, MA; J. W. Baldwin, T. W. Cronin

3:45 P.M.
18.2 *The Influence of Topography on Blocking and General Circulation.* **Veeshan Narinesingh**, CUNY, New York, NY; J. Booth, S. Clark, Y. Ming

4:00 P.M.
18.3 *Atmospheric Blocking as an Evolution of Rossby Wave Packets.* **Lei Wang**, Harvard Univ., Cambridge, MA; Z. Kuang

4:15 P.M.
18.4 *Efficiency of Baroclinic Eddy Growth and the Midwinter Suppression of the North Pacific Storm Track Intensity.* **Gwendal Rivière**, LMD, Paris, France; S. Schemm

4:30 P.M.
18.5 *Subtropical Jet Control on Winter Storm Tracks.* **Lenka Novak**, California Institute of Technology, Pasadena, CA; T. Schneider

4:45 P.M.
18.6 *Quantifying the Annular Mode Dynamics in an Idealized Atmosphere.* **Pedram Hassanzadeh**, Rice Univ., Houston, TX; Z. Kuang

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL
Poster Session 10: MULTISCALE ATMOSPHERE-OCEAN-ICE INTERACTION: POSTERS

135 *Examining Atlantic Meridional Overturning Circulation Mean Strength and Variability in a Hierarchy of Model Configurations.* **Luke P. Van Roekel**, LANL, Los Alamos, NM; M. Maltrud, A. F. Roberts, J. C. Golaz, P. Caldwell, Q. Tang, J. Wolfe, A. Mametjanov

136 *Characterizing the Energetics of Multi-Scale Asymmetries during Tropical Cyclone Rapid Intensity Changes.* **Saiprasanth Bhalachandran**, Stanford Univ., Stanford, CA; D. R. Chavas, F. D. Marks, S. K. Dubey, A. Shreevastava, T. N. Krishnamurti

137 *The Forcing of Great Plains Low-Level Jet Variability and Structure By Multiple Teleconnections.* **Craig R. Ferguson**, Univ. at Albany, SUNY, Albany, NY; M. A. campbell, L. bosart

138 *Examining Biases in Labrador Sea Mixed Layer Depth.* **LeAnn M. Conlon**, LANL, Los Alamos, NM; L. P. Van Roekel, M. Maltrud, J. C. Golaz, P. Caldwell, Q. Tang, J. Wolfe, A. Mametjanov

139 *Synoptic-Scale Air-Ice-Ocean Interactions During Arctic Cyclone Events.* **P. Ola G. Persson**, CIRES/Univ. of Colorado and NOAA/ESRL/Physical Sciences Division, Boulder, CO; A. Solomon, G. deBoer, J. Intrieri, M. Shupe

140 *Contribution of Amoc on Global Climate Under Different Surface Radiative Forcing.* **Xinyue Li**, OCEAN Univ. OF CHINA, Qingdao, China; X. Chen

141 *Onset of Double-Diffusive Convection in the Ice Shelf/Ocean Boundary Layer.* **Leo Middleton**, Univ. of Cambridge, Cambridge, UK; C. Vreugdenhil, P. Davis, P. R. Holland, K. Nicholls, J. R. Taylor

142 *Labrador Sea Air-Sea Fluxes, Circulation, and Sea-Ice in High-Res and Low-Res E3SM.* **Qing Li**, LANL, Los Alamos, NM; L. P. Van Roekel, P. Caldwell, J. C. Golaz, M. Maltrud, A. Mametjanov, Q. Tang, J. Wolfe

143 *The National Earth System Prediction Capability: Coordinating the US Response to Geophysical Modeling Challenges.* **Jessie C. Carman**, OAR, Silver Spring, MD; D. McCarren, B. Johnson, B. R. Brown, J. Infanti

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL

Poster Session 11: STORM TRACKS AND JETS: POSTERS

144 *Application of Time-series Causal Networks to Southern Hemisphere Stratosphere-Troposphere Coupling during the Spring/Summer Seasonal Transition.* **Elena Saggioro**, Univ. of Reading, Reading, UK; T. G. Shepherd

145 *The Role of Mean State Bias in a Climate Model on Atmospheric Blocking Frequency.* **Edward Kleiner**, Harvard Univ., Cambridge, MA; P. W. Chan, L. Wang, Z. Kuang

146 *The Relation between the Pacific Jet Spatial Structure, Its Seasonal Variability and the Pacific Mid-Winter Minimum: A Clustering Perspective.* **Janni Yuval**, MIT, Cambridge, MA; Y. Kaspi

147 *A Lagrangian Study of the Difference Between the Pacific and Atlantic Storm Track..* **Or Hadas**, Weizmann Institute of Science, Rehovot, Israel; Y. Kaspi

148 *Stratospheric Initial Conditions Provide Seasonal Predictability of the North Atlantic and Arctic Oscillations.* **Yu Nie**, National Climate Center, China Meteorologcial Administration, Beijing, China; A. A. Scaife, H. L. Ren, R. Comer, M. Andrews

149 *Effects of Moisture on a Simple Model of the Midlatitude Jet Stream.* **Eric Bembenek**, McGill Univ., Montreal, Canada; D. Straub, T. M. Merlis

150 *Impact of Upper and Lower Tropospheric Baroclinicity on Eddy-driven Jets Variability.* **Loïc Robert**, RCAST, Tokyo, Japan; G. Rivière, F. Codron

151 *Diagnosing Upper Tropospheric Rossby Wave Packets Using Local Finite Amplitude Wave Activity.* **Volkmar Wirth**, Univ. of Mainz, Mainz, Germany; P. Ghinassi

152 *The British-Baikal Corridor: A Teleconnection Pattern Along the Summertime Polar Front Jet over the Eurasia.* **Peiqiang Xu**, IAP, Beijing, China; L. Wang, W. Chen

153 *The Impact of Polar Amplification on Mid-Latitude Rossby Waves and Cold Spells Using Idealized Numerical Modeling.* **Émilien Jolly**, LMD, Paris, France; F. D'Andrea, G. Rivière, S. Fromang

154 *Quasi-Stationary Waves and Their Connection to Oceanic Anomalies.* **Gabriel Wolf**, Univ. of Reading, Reading, UK

155 *Local Eddy Kinetic Energy Variability in the Northern Hemisphere Storm Track Regions.* **Lina Boljka**, Colorado State Univ., Fort Collins, CO; D. W. J. Thompson, Y. Li

156 *A New Look at Northern Hemisphere Sub-Monthly Retrograde Waves from Reanalysis.* **Girish Nigamanth Raghunathan**, Arizona State Univ., Tempe, AZ; H. P. Huang

157 *Predictability Associated with Northern Hemisphere Sub-Monthly Retrograde Disturbances.* **Huei-Ping Huang**, Arizona State Univ., Tempe, AZ

158 *Recent Wind/Temperature Patterns in the Coastal Region of Qatar.* **Reza Sadr**, Texas A&M Univ., College Station, TX; Y. Li, D. Samanta

159 *Statistical Relationship between Atmospheric Rivers and Extratropical Cyclones and Anticyclones.* **Yanjuan Guo**, Univ. of California, Los Angeles, CA; T. Shinoda, E. K. M. Chang

160 *Testing Explanations of Jet Shift Using Linear Response Function of an Idealized Dry GCM.* **Pak-Wah Chan**, Harvard Univ., Cambridge, MA; P. Hassanzadeh, Z. Kuang

161 *The North Atlantic Storm Track Shifts Induced by Stationary Wave Interference.* **Mingyu Park**, The Pennsylvania State Univ., Univ. Park, PA; S. Lee

162 *Quantifying the Role of Climate Forcing and Circulation Feedback in the Atmospheric Circulation Response to Greenhouse Warming.* **Pengfei Zhang**, Univ. of California, Los Angeles, Los Angeles, CA; G. Chen

163 *The Response of Atmospheric Diffusivity to Climate Change.* **Todd Mooring**, The Univ. of Chicago, Chicago, IL; T. A. Shaw

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL

Poster Session 12: WAVES, MEAN FLOWS AND BALANCE: POSTERS

164 *Thermodynamic and Dynamical Structures of the Qbo and Associated Wave-Mean Flow Interactions.* **Hamid Pahlavan**, Univ. of Washington, Seattle, WA; Q. Fu, J. M. Wallace, G. Kiladis

165 *Data-Driven Computation of Linear Response Functions Using Fluctuation-Dissipation Theorem.* **Pedram Hassanzadeh**, Rice Univ., Houston, TX; A. Khodkar, E. Nabizadeh

166 *Barotropic Instability of a Zonal Jet on the Sphere: From Non-Divergence through Quasi-Geostrophy to Shallow Water.* **Chaim I. Garfinkel**, Hebrew Univ. of Jerusalem, Jerusalem, Israel; O. Shamir, N. Paldor

167 *The Roles of Imbalances for Large-Scale Dynamics and Gravity Waves.* **Almut Gassmann**, Leibniz-Institute of Atmospheric Physics, Kuehlungsborn, Germany

168 *Internal Gravity Waves, Shear, and Mixing in Forced Stratified Turbulence.* **Christopher J. Howland**, Univ. of Cambridge, Cambridge, UK; J. R. Taylor, C. P. Caulfield

169 *Why is Stratospheric Sudden Warming Sudden?.* **Jonathan Falk**, Univ. of Chicago, Chicago, IL

170 *Understanding the Eddy Momentum Flux: Extending Rossby Wave Chromatography to a Baroclinic Atmosphere.* **David J. Lorenz**, Univ. of Wisconsin, Madison, WI

171 *Spontaneous Emission of Gravity Waves during the Winter 2015/16.* **Christoph Zülicke**, IAP, Kühlungsborn, Germany; L. Schoon

172 *Periodicity Disruption of a Model Quasi-Biennial Oscillation.* **Louis-Philippe Nadeau**, Institut des Sciences de la Mer de Rimouski, Rimouski, Canada; A. Renaud, A. Venaille

173 *Nonlinear Evolution of a Baroclinic Wave and Imbalanced Dissipation.* **Balasubramanya T. Nadiga**, LANL, Los Alamos, NM; J. R. Urrego-Blanco, W. R. casper

174 *Lagrangian-Mean Motion Induced By Vertically Trapped Inertia-Gravity Wavepackets.* **Wenjing Dong**, New York Univ., New York, NY; O. Buhler, K. S. Smith

175 *Blocking Statistics in a Varying Climate: Lessons from a 'Traffic Jam' Model with Aperiodic Forcing.* **Pragallva Barpanda**, The Univ. of Chicago, Chicago, IL; A. Paradise, C. B. Rocha, N. Nakamura

5:00 P.M.–7:00 P.M.–CASCO BAY EXHIBIT HALL

Poster Session 9: MESOSCALE AND SUBMESOSCALE OCEAN DYNAMICS: POSTERS

111 *An Optimized Global Diagnosis of Anisotropic Mesoscale Stirring and Mixing.* **Scott Bachman**, NCAR, Boulder, CO; B. Fox-Kemper, F. Bryan

112 *Systematic Differences Between Eulerian and Surface Drifter Statistics in the Gulf of Mexico.* **Jenna L Pearson**, Brown Univ., Providence, RI; B. Fox-Kemper, B. C. Pearson, H. S. Huntley, H. Chang, D. Kirwan

113 *Mesoscale and Submesoscale Eddy Dynamics in the Sargasso Sea.* **Kathleen E. Abbott**, American Museum of Natural History, New York, NY; D. Lindo-Atichati, J. C. McWilliams, J. Gula

114 *Leakiness and Separation of the Deep Western Boundary Current Near Flemish Cap.* **Aviv Solodoch**, Dept. of Atmospheric and Oceanic Sciences, Los Angeles, CA; A. L. Stewart, J. C. McWilliams

115 *Anisotropic Helmholtz Decomposition of Lagrangian Tracer Data.* **Han Wang**, Courant Institute of Mathematical Sciences, New York, NY; O. Buhler

116 *Large Scale Impacts of Submesoscale Turbulence.* **Anirban Sinha**, California Institute of Technology, Pasadena, CA; J. Callies

117 *Seasonality and Spatial Dependence of Meso- and Submesoscale Ocean Currents from Along-Track Altimetry Data.* **Albion Lawrence**, Brandeis Univ., Waltham, MA; J. Callies

118 *Scaling Eddy Buoyancy Mixing across Continental Slopes.* **Yan Wang**, The Hong Kong Univ. of Science and Technology, Kowloon, Clear Water Bay, CA; A. L. Stewart

119 *Can Topographic Form Stress Impede Prograde Ocean Flows?.* **Yue Bai**, Univ. of California, Los Angeles, CA; Y. Wang, A. L. Stewart

120 *Stranger Than Friction: A New Method to Trap Eastern Boundary Currents.* **Suyash Bire**, SUNY, Stony Brook, NY, NY; C. L. P. Wolfe

121 *Predictability of ROMS-Ocean State Ocean Model (ROMS-OSOM).* **Aakash Sane**, Brown Univ., Providence, RI; B. Fox-Kemper, D. Ullman, C. Kincaid, L. Rothstein

122 *A Mechanistic Understanding on Eddy Iron Transport in the Southern Ocean..* **Takaya Uchida**, Columbia Univ. in the City of New York, Palisades, NY; D. Balwada, R. P. Abernathey, G. McKinley, S. Smith, M. Levy

123 *The Global Sink of Available Potential Energy By Mesoscale Air-Sea Interaction.* **Stuart Bishop**, NCSU, Raleigh, NC; F. O. Bryan, R. J. Small

124 *Direct and Indirect Wind Driving of the Ocean.* **Hussein Aluie**, Univ. of Rochester, Rochester, NY; S. Rai, M. M. Sadek, M. Maltrud, M. W. Hecht, G. K. Vallis

125 *Mixing Length and Diffusivity of the Quasi-Geostrophic Vortex Gas.* **Basile Gallet**, CEA Saclay, Gif sur Yvette, France; R. Ferrari

126 *Opening the Window to the Southern Ocean: The Role of Jet Dynamics.* **Andreas Klocker**, Antarctic Climate & Ecosystems Cooperative Research Centre, Hobart, Australia

127 *The Evolution and Equilibration of an Isolated Symmetrically Unstable Front.* **Aaron Wienkers**, Univ. of Cambridge, Cambridge, UK; L. Thomas, J. R. Taylor

128 *A Stochastic Model of Eddy Velocity and Density Anomalies.* **Zofia Stanley**, Univ. of Colorado, Bouldr, Boulder, CO; I. Grooms, W. Kleiber

129 *Mixing-Driven Mean Flows and Submesoscale Eddies over Mid-Ocean Ridge Flanks and Fracture Zone Canyons.* **Jörn Callies**, California Institute of Technology, Pasadena, CA; X. Ruan

130 *Upwelling-Downwelling Asymmetry of a Nonlinear Ekman Layer.* **Kevin Duquette**, ISMER, Rimouski, Canada; L. P. Nadeau, D. Straub, B. Tremblay, P. Bourgault

131 *Lagrangian Transport Around Mesoscale Eddies.* **Tongya Liu**, Columbia Univ., Palisades, NY; R. P. Abernathey

132 *A Data-Driven Method to Evaluate Subgrid Tracer Fluxes in Ocean Models.* **Mu Xu**, LDEO, Palisades, NY; R. P. Abernathey

133 *Investigating Dynamical Connections between Measured Eddy Mixing Coefficients As a Guide to Parameterization.* **K. Shafer Smith**, New York Univ., New York, NY; D. Balwada, R. P. Abernathey

134 *The Eddy Transfer Matrix: A Lagrangian Approach to Eddy Transport.* **Ryan P. Abernathey**, Columbia Univ., Palisades, NY

Friday, June 28

7:30 A.M.–1:30 P.M.	Registration–Grand Ballroom Foyer
10:00 A.M.–10:30 A.M.	AM Coffee Break–Connecticut/ Rhode Island
12:30 P.M.–12:35 P.M.	Conference Concludes

8:00 A.M.–10:00 A.M.
Session 19: MESOSCALE AND SUBMESOSCALE OCEAN DYNAMICS (PART 1) –*Vermont/New Hampshire*

Chair: Shafer Smith, Courant Institute of Mathematical Sciences, New York, NY

8:00 A.M.
19.1 *Submesoscale Turbulence in the Ocean Bottom Boundary Layer: Baroclinic, Symmetric, and Centrifugal Instabilities.* **Jacob O. Wenegrat**, Stanford Univ., Stanford, CA; L. Thomas

8:15 A.M.
19.2 *Submesoscale Eddies in the Abyssal Ocean.* **Jörn Callies**, California Institute of Technology, Pasadena, CA

8:30 A.M.
19.3 *Deep Reaching Submesoscales: Unravelling a Major Pathway Connecting the Ocean Interior to the Surface.* **Lia Siegelman**, Caltech, Pasadena, CA; P. klein, A. F. Thompson

8:45 A.M.
19.4 *Frontal Formation in the Presence of Submesoscale Instabilities and Turbulence.* **Abigail Bodner**, Brown Univ., Providence, RI; B. Fox-Kemper, L. P. Van Roekel, J. C. McWilliams, P. Sullivan

9:00 A.M.
19.5 *Baroclinic Instability in the Presence of Vertical Mixing.* **Matthew N. Crowe**, Univ. of Cambridge, Cambridge, UK; J. R. Taylor

9:15 A.M.
19.6 *Emergence of Long-Lived Ocean Anticyclones in Topographic Depressions.* **Aviv Solodoch**, Dept. of Atmospheric and Oceanic Sciences, Los Angeles, CA; A. L. Stewart, J. C. McWilliams

9:30 A.M.
19.7 *From Large Eddy Simulations to the Optimization of Models for Ocean Surface Boundary Layer Turbulence.* **Gregory L. Wagner**, MIT, Cambridge, MA; A. Souza, R. Ferrari

9:45 A.M.
19.8 *The Influence of Submesoscales on the Export of Dense Material from a Turbulent Mixed Layer.* **John R. Taylor**, Univ. of Cambridge, Cambridge, UK; K. M. Smith, C. Vreugdenhil

10:30 A.M.–12:30 P.M.
Session 20: MESOSCALE AND SUBMESOSCALE OCEAN DYNAMICS (PART 2) –*Vermont/New Hampshire*

Chair: Madeleine Youngs, MIT, Cambrige, MA

10:30 A.M.
20.1 *Measuring Eddy Driven Transport in a Zonally Inhomogeneous Flow.* **Dhruv Balwada**, New York Univ., New York, NY; K. S. Smith, R. P. Abernathey

10:45 A.M.
20.2 *Wave-Topography Interaction and Impact on Oceanic Kinetic Energy Distribution.* **Cimarron J. L. Wortham**, NWRA - NorthWest Research Associates, Redmond, WA

11:00 A.M.
20.3 *Barotropic and Baroclinic Eddy Saturation of the Antarctic Circumpolar Current.* **Louis-Philippe Nadeau**, Institut des Sciences de la Mer de Rimouski, Rimouski, Canada; A. Venaille, D. Straub, R. Ferrari

11:15 A.M.
20.4 *A New Estimate of the Southern Ocean Eddy-Driven Overturning Circulation from Argo Float Observations.* **Alison R. Gray**, Univ. of Washington, Seattle, WA; S. C. Riser

11:30 A.M.
20.5 *Role of Coherent Eddies in Potential Vorticity Transport in Two-layer Quasigeostrophic Turbulence.* **Wenda Zhang**, SUNY, Stony Brook, NY; C. L. P. Wolfe, R. P. Abernathey

11:45 A.M.
20.6 *Towards a Data-Driven Mesoscale Eddy Parameterisation.* **Thomas Bolton**, Univ. of Oxford, Oxford, UK; L. Zanna

12:00 A.M.
20.7 *Energetically Consistent, Resolution Aware, Parameterization of Mesoscale Eddies in the Ocean.* **Malte F. Jansen**, The Univ. of Chicago, Chicago, IL; A. Adcroft, S. Khani, H. Kong

12:15 A.M.
20.8 *Linear and Nonlinear Baroclinic Instability and the Effects of Eddy-Permitting Discretization.* **Ian Grooms**, Univ. of Colorado, Boulder, CO; W. Barham, S. Bachman

22ND CONFERENCE ON ATMOSPHERIC AND OCEANIC FLUID DYNAMICS CONCLUDES

	Paper #	Day	Time
A			
Abbot, D.	9.1	Wed	8:00 AM
Abbott, K. E.	113	Thu	5:00 PM
Abbott, T. H.	109	Tue	5:00 PM
Abbott, T. H.	15	Mon	5:00 PM
Abernathey, R. P.	134	Thu	5:00 PM
Adam, O.	7.1	Tue	1:30 PM
Albers, J. R.	44	Mon	5:00 PM
Albers, J. R.	5.8	Tue	9:45 AM
Aluie, H.	124	Thu	5:00 PM
Armour, K.	96	Tue	5:00 PM
Ashkenazy, Y.	9.5	Wed	9:00 AM
Asselin, O.	15.3	Thu	8:30 AM
B			
Bachman, S.	111	Thu	5:00 PM
Back, L.	2.2	Mon	10:45 AM
Bai, Y.	119	Thu	5:00 PM
Bakas, N.	92	Tue	5:00 PM
Balwada, D.	20.1	Fri	10:30 AM
Barpanda, P.	175	Thu	5:00 PM
Barpanda, P.	17.6	Thu	2:45 PM
Beaudoin, J. F.	8.3	Tue	4:00 PM
Bembenek, E.	149	Thu	5:00 PM
Benedict, J. J.	2.3	Mon	11:00 AM
Berrington, A.	6	Mon	5:00 PM
Bhalachandran, S.	136	Thu	5:00 PM
Bire, S.	120	Thu	5:00 PM
Bishop, S.	123	Thu	5:00 PM
Black, A. S.	10	Mon	5:00 PM
Bodner, A.	19.4	Fri	8:45 AM
Boljka, L.	17.5	Thu	2:30 PM
Boljka, L.	155	Thu	5:00 PM
Bolton, T.	20.6	Fri	11:45 AM
Bruning, E. C.	2	Mon	5:00 PM
C			
Callies, J.	129	Thu	5:00 PM
Callies, J.	19.2	Fri	8:15 AM
Carman, J. C.	143	Thu	5:00 PM
Cessi, P.	8.1	Tue	3:30 PM
Chan, P. W.	160	Thu	5:00 PM
Chang, C. Y.	85	Tue	5:00 PM
Chang, E. K. M.	16.1	Thu	10:30 AM
Chavas, D. R.	48	Tue	5:00 PM
Chen, J.	63	Tue	5:00 PM
Chor, T.	73	Tue	5:00 PM
Chumakova, L.	5.5A	Tue	9:00 AM
Clark, J. P.	23	Mon	5:00 PM
Clark, J. P.	4.2	Mon	3:45 PM
Codron, F.	12.2	Wed	1:45 PM
Colucci, S. J.	20	Mon	5:00 PM
Colyer, G. J.	74	Tue	5:00 PM
Conlon, L. M.	138	Thu	5:00 PM
Constantinou, N.	69	Tue	5:00 PM
C (Continued)			
Constantinou, N. C.	7.4	Tue	2:15 PM
Cope, L.	17.3	Thu	2:00 PM
Cronin, T. W.	11.1	Wed	11:00 AM
Crowe, M. N.	19.5	Fri	9:00 AM
D			
DallaSanta, K.	46	Mon	5:00 PM
Davis, L. L. B.	57	Tue	5:00 PM
De-Leon, Y.	79	Tue	5:00 PM
De-Leon, Y.	80	Tue	5:00 PM
Delorme, B. L.	5.4	Tue	8:45 AM
Dong, W.	174	Thu	5:00 PM
Donohoe, A.	12.1	Wed	1:30 PM
Duer, K.	67	Tue	5:00 PM
Duffy, M. L.	1.5A	Mon	9:30 AM
Duquette, K.	130	Thu	5:00 PM
E			
Ehrmann, T. S.	17	Mon	5:00 PM
Emanuel, K. A.	93	Tue	5:00 PM
Emanuel, K.	1.1	Mon	8:30 AM
F			
Fajber, R.	105	Tue	5:00 PM
Falk, J.	169	Thu	5:00 PM
Ferguson, C. R.	137	Thu	5:00 PM
Fu, H.	7	Mon	5:00 PM
Fu, M.	30	Mon	5:00 PM
G			
Galanti, E.	43	Mon	5:00 PM
Galanti, E.	10.1	Wed	10:30 AM
Gallet, B.	125	Thu	5:00 PM
Garfinkel, C. I.	32	Mon	5:00 PM
Garfinkel, C. I.	88	Tue	5:00 PM
Garfinkel, C. I.	65	Tue	5:00 PM
Garfinkel, C. I.	34	Mon	5:00 PM
Garfinkel, C. I.	166	Thu	5:00 PM
Garfinkel, C. I.	15.7	Thu	9:30 AM
Gassmann, A.	167	Thu	5:00 PM
Geen, R.	6.3	Tue	11:00 AM
Gehne, M.	33	Mon	5:00 PM
Gerber, E. P.	17.1	Thu	1:30 PM
Gonzalez, A. O.	3	Mon	5:00 PM
Goyal, R.	38	Mon	5:00 PM
Gray, A. R.	20.4	Fri	11:15 AM
Grise, K. M.	1.4	Mon	9:15 AM
Grooms, I.	20.8	Fri	12:15 PM
Guendelman, I.	76	Tue	5:00 PM
Guendelman, I.	9.7	Wed	9:30 AM
Guo, Y.	159	Thu	5:00 PM
Gupta, A.	6.2	Tue	10:45 AM

	Paper #	Day	Time
H			
Hadas, O.	147	Thu	5:00 PM
Hadas, O.	102	Tue	5:00 PM
Hankel, C.	4.4	Mon	4:15 PM
Hassanzadeh, P.	18.6	Thu	4:45 PM
Hassanzadeh, P.	165	Thu	5:00 PM
Hell, M. C.	6.6	Tue	11:45 AM
Henry, M.	4.6	Mon	4:45 PM
Hill, S. A.	6.4	Tue	11:15 AM
Hitchcock, P.	5.6	Tue	9:30 AM
Howland, C. J.	168	Thu	5:00 PM
Hsieh, T. L.	61	Tue	5:00 PM
Hu, S.	99	Tue	5:00 PM
Hu, Z.	25	Mon	5:00 PM
Huang, H. P.	157	Thu	5:00 PM
J			
Jansen, M. F.	20.7	Fri	12:00 PM
Jansen, M. F.	55	Tue	5:00 PM
Jeevanjee, N.	6.5	Tue	11:30 AM
Jnglin Wills, R. C.	13.4	Wed	4:15 PM
Jnglin Wills, R. C.	50	Tue	5:00 PM
Jolly, É.	153	Thu	5:00 PM
Jones, C. S.	8.6	Tue	4:45 PM
Jucker, M.	37	Mon	5:00 PM
K			
Kang, W.	71	Tue	5:00 PM
Kaspi, Y.	75	Tue	5:00 PM
Khairoutdinov, M.	4	Mon	5:00 PM
Kiladis, G.	5.7	Tue	9:15 AM
Kleiner, E.	145	Thu	5:00 PM
Klocker, A.	13.2	Wed	3:45 PM
Klocker, A.	126	Thu	5:00 PM
Kohl, M.	1	Mon	5:00 PM
Koll, D. D. B.	9.2	Wed	8:15 AM
Kong, H.	7.3	Tue	2:00 PM
L			
Labonté, M. P.	9.3	Wed	8:30 AM
Lawrence, A.	117	Thu	5:00 PM
Lee, H. I.	3.5	Mon	2:30 PM
Li, C.	10.2	Wed	10:45 AM
Li, F.	62	Tue	5:00 PM
Li, J.	56	Tue	5:00 PM
Li, L.	100	Tue	5:00 PM
Li, Q.	42	Mon	5:00 PM
Li, Q.	142	Thu	5:00 PM
Li, X.	140	Thu	5:00 PM
Li, Y.	12	Mon	5:00 PM
Li, Z.	1.6	Mon	9:45 AM
Lindgren, E. A.	15.5	Thu	9:00 AM
Lindgren, E. A.	51	Tue	5:00 PM

	Paper #	Day	Time
L (Continued)			
Liu, T.	131	Thu	5:00 PM
Lobo, A. H.	9.8	Wed	9:45 AM
Lorenz, D. J.	170	Thu	5:00 PM
Lu, J.	104	Tue	5:00 PM
Lutsko, N.	18.1	Thu	3:30 PM
M			
Maher, P.	16.3	Thu	11:00 AM
Maher, P.	64	Tue	5:00 PM
Maithel, V.	13	Mon	5:00 PM
Marsico, D. H.	84	Tue	5:00 PM
Marston, B.	5.1	Tue	8:00 AM
Masunaga, H.	9	Mon	5:00 PM
Match, A. L.	28	Mon	5:00 PM
McKim, B. A.	52	Tue	5:00 PM
Meneghello, G.	4.1	Mon	3:30 PM
Menzel, M. E.	3.2	Mon	1:45 PM
Merlis, T. M.	1.2	Mon	8:45 AM
Mester, M.	18	Mon	5:00 PM
Middleton, L.	141	Thu	5:00 PM
Mitchell, J. L.	26	Mon	5:00 PM
Mitchell, J. L.	9.6	Wed	9:15 AM
Miyamoto, Y.	86	Tue	5:00 PM
Miyawaki, O.	107	Tue	5:00 PM
Moore, D. W.	5.2	Tue	8:15 AM
Mooring, T.	163	Thu	5:00 PM
N			
Nadeau, L. P.	20.3	Fri	11:00 AM
Nadeau, L. P.	172	Thu	5:00 PM
Nadiga, B. T.	173	Thu	5:00 PM
Nakamura, N.	15.6	Thu	9:15 AM
Narinesingh, V.	18.2	Thu	3:45 PM
Newman, M.	12.6	Wed	2:45 PM
Newsom, E. R.	12.4	Wed	2:15 PM
Nie, J.	5	Mon	5:00 PM
Nie, Y.	148	Thu	5:00 PM
Novak, L.	18.5	Thu	4:30 PM
O			
O'Gorman, P. A.	6.1	Tue	10:30 AM
O'Neill, M. E.	15.4	Thu	8:45 AM
P			
Pahlavan, H.	164	Thu	5:00 PM
Park, M.	161	Thu	5:00 PM
Park, M.	16.5	Thu	11:30 AM
Patmore, R. D.	19	Mon	5:00 PM
Pearson, J. L.	112	Thu	5:00 PM
Persson, P. O. G.	139	Thu	5:00 PM
Persson, P. O. G.	4.3	Mon	4:00 PM

P (Continued)

	Paper #	Day	Time
Pillar, H.	22	Mon	5:00 PM
Platonov, D.	81	Tue	5:00 PM
Polichtchouk, I.	15.8	Thu	9:45 AM
Proistosescu, C.	108	Tue	5:00 PM

R

Raghunathan, G. N.	156	Thu	5:00 PM
Raiter, D.	3.4	Mon	2:15 PM
Ramírez-Reyes, A.	53	Tue	5:00 PM
Ramsay, H. A.	8	Mon	5:00 PM
Rivière, G.	36	Mon	5:00 PM
Rivière, G.	18.4	Thu	4:15 PM
Robert, L.	150	Thu	5:00 PM
Rogstad, S.	13.6	Wed	4:45 PM
Rollings, M.	40	Mon	5:00 PM
Romps, D. M.	11.2	Wed	11:15 AM
Rose, B. E. J.	4.5	Mon	4:30 PM

S

Sadr, R.	158	Thu	5:00 PM
Saggioro, E.	144	Thu	5:00 PM
Sakaeda, N.	5.3	Tue	8:30 AM
Sane, A.	121	Thu	5:00 PM
Schmidt, D. F.	39	Mon	5:00 PM
Schröttle, J.	31	Mon	5:00 PM
Seidel, S.	98	Tue	5:00 PM
Sentic, S.	29	Mon	5:00 PM
Shaw, T. A.	11.4	Wed	11:45 AM
Shaw, T. A.	110	Tue	5:00 PM
Siegelman, L.	19.3	Fri	8:30 AM
Simpson, I. R.	17.2	Thu	1:45 PM
Singer, C. E.	14	Mon	5:00 PM
Singh, M. S.	101	Tue	5:00 PM
Singh, M. S.	2.1	Mon	10:30 AM
Sinha, A.	116	Thu	5:00 PM
Sinha, A.	47	Tue	5:00 PM
Smith, C. A.	72	Tue	5:00 PM
Smith, K. S.	133	Thu	5:00 PM
Smith, S. J.	16	Mon	5:00 PM
Smyth, J. E.	103	Tue	5:00 PM
Solodoch, A.	19.6	Fri	9:15 AM
Solodoch, A.	114	Thu	5:00 PM
Souza, A.	8.2	Tue	3:45 PM
Spaulding-Astudillo, F.	78	Tue	5:00 PM
Spengler, T.	16.2	Thu	10:45 AM
Sroka, S.	1.3	Mon	9:00 AM
Stanley, Z.	128	Thu	5:00 PM
Staten, P. W.	3.1	Mon	1:30 PM
Sun, S.	7.6	Tue	2:45 PM

T

Tailleux, R.	91	Tue	5:00 PM

T (Continued)

	Paper #	Day	Time
Tan, Z.	2.5	Mon	11:30 AM
Tan, Z.	54	Tue	5:00 PM
Tarshish, N.	95	Tue	5:00 PM
Taylor, J. R.	19.8	Fri	9:45 AM
Thomas, M. D.	106	Tue	5:00 PM
Thompson, A. F.	12.5	Wed	2:30 PM
Thomson, S. I.	77	Tue	5:00 PM
Thomson, S. I.	9.4	Wed	8:45 AM
Todd, A.	13.5	Wed	4:30 PM
Troitskaya, Y.	87	Tue	5:00 PM
Tziperman, E.	3.6	Mon	2:45 PM
Tziperman, E.	11.3	Wed	11:30 AM

U

Uchida, T.	122	Thu	5:00 PM

V

Vallis, G. K.	2.6	Mon	11:45 AM
Van Roekel, L. P.	135	Thu	5:00 PM
Vanneste, J.	15.2	Thu	8:15 AM

W

Wagner, G. L.	59	Tue	5:00 PM
Wagner, G. L.	19.7	Fri	9:30 AM
Wang, H.	115	Thu	5:00 PM
Wang, L.	18.3	Thu	4:00 PM
Wang, S. 2	70	Tue	5:00 PM
Wang, S.	27	Mon	5:00 PM
Wang, Y.	118	Thu	5:00 PM
Watt-Meyer, O.	60	Tue	5:00 PM
Watt-Meyer, O.	3.3	Mon	2:00 PM
Waugh, D. W.	13.1	Wed	3:30 PM
Waugh, D. W.	66	Tue	5:00 PM
Wenegrat, J. O.	19.1	Fri	8:00 AM
White, I.	24	Mon	5:00 PM
White, R. H.	97	Tue	5:00 PM
White, R. H.	13.3	Wed	4:00 PM
Wienkers, A.	127	Thu	5:00 PM
Wirth, V.	151	Thu	5:00 PM
Wolf, G.	154	Thu	5:00 PM
Wolf, G.	49	Tue	5:00 PM
Wolfe, C. L. P.	8.5	Tue	4:30 PM
Wortham, C. J. L.	20.2	Fri	10:45 AM
Wu, Q.	41	Mon	5:00 PM

X

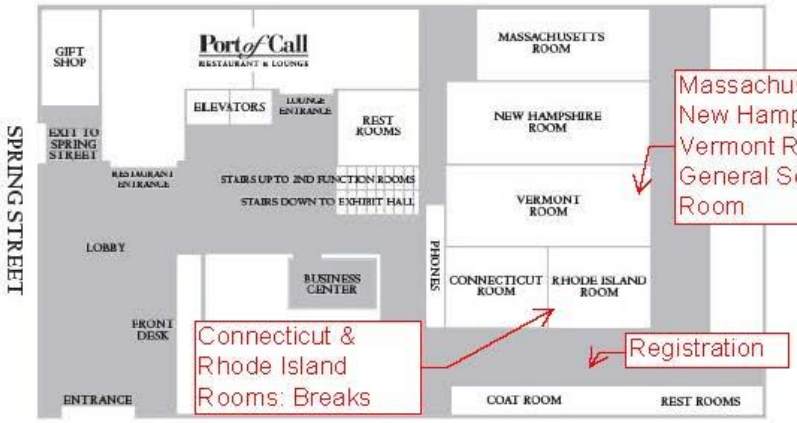
Xie, J. H.	94	Tue	5:00 PM
Xu, M.	132	Thu	5:00 PM
Xu, P.	152	Thu	5:00 PM

	Paper #	Day	Time
Y			
Yacoby, I.	89	Tue	5:00 PM
Yang, D.	11	Mon	5:00 PM
Yang, H.	58	Tue	5:00 PM
Yang, L.	7.2	Tue	1:45 PM
Yang, X.	8.4	Tue	4:15 PM
Young, W. R.	15.1	Thu	8:00 AM
Youngs, M.	7.5	Tue	2:30 PM
Yuval, J.	16.4	Thu	11:15 AM
Yuval, J.	146	Thu	5:00 PM
Z			
Zanna, L.	12.3	Wed	2:00 PM
Zhang, C.	82	Tue	5:00 PM
Zhang, F.	90	Tue	5:00 PM
Zhang, P.	162	Thu	5:00 PM
Zhang, W.	20.5	Fri	11:30 AM
Zhang, X.	45	Mon	5:00 PM
Zhang, Y.	2.4	Mon	11:15 AM
Zhao, B.	83	Tue	5:00 PM
Zhao, K. X.	21	Mon	5:00 PM
Zülicke, C.	171	Thu	5:00 PM
Zurita-Gotor, P.	17.4	Thu	2:15 PM
Zurita-Gotor, P.	68	Tue	5:00 PM
Zurita-Gotor, P.	35	Mon	5:00 PM

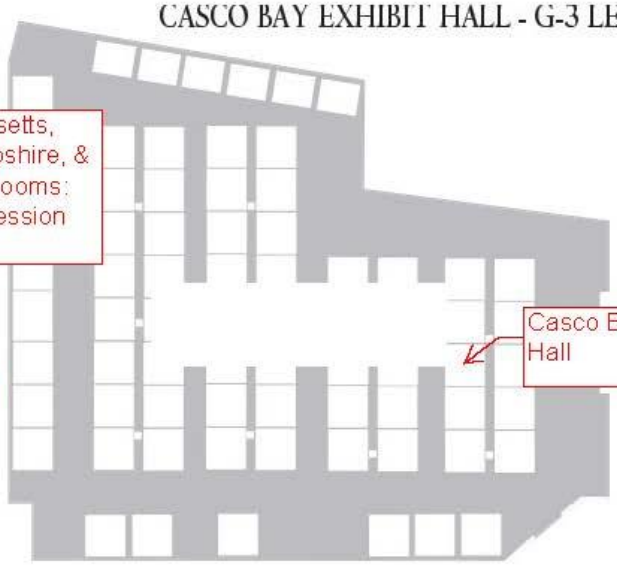
ATMOSPHERIC AND OCEANIC FLUID DYNAMICS *(FORMERLY WAVES AND STABILITY)* CONFERENCE SERIES

DATE	LOCATION	CONFERENCE
29 March–2 April 1976	Seattle, WA	(First) Conference on Atmospheric and Oceanic Waves and Stability
23–26 October 1978	Boston, MA	Second Conference on Atmospheric and Oceanic Waves and Stability
20–22 January 1981	San Diego, CA	Third Conference on Atmospheric and Oceanic Waves and Stability
22–25 March 1983	Boston, MA	Fourth Conference on Atmospheric and Oceanic Waves and Stability
4–7 March 1985	New Orleans, LA	Fifth Conference on Atmospheric and Oceanic Waves and Stability
25–28 August 1987	Seattle, WA	Sixth Conference on Atmospheric and Oceanic Waves and Stability
10–14 April 1989	San Francisco, CA	Seventh Conference on Atmospheric and Oceanic Waves and Stability
14–18 October 1991	Denver, CO	Eighth Conference on Atmospheric and Oceanic Waves and Stability
10–14 May 1993	San Antonio, TX	Ninth Conference on Atmospheric and Oceanic Waves and Stability
5–9 June 1995	Big Sky, MT	10th Conference on Oceanic and Atmospheric Waves and Stability
23–27 June 1997	Tacoma, WA	11th Conference on Atmospheric and Oceanic Fluid Dynamics
7–11 June 1999	New York, NY	12th Conference on Atmospheric and Oceanic Fluid Dynamics
4–8 June 2001	Breckenridge, CO	13th Conference on Atmospheric and Oceanic Fluid Dynamics
9–13 June, 2003	San, Antonio, TX	14th Conference on Atmospheric and Oceanic Fluid Dynamics
13–17 June 2005	Cambridge, MA	15th Conference on Atmospheric and Oceanic Fluid Dynamics
25-29 June, 2007	Santa Fe, NM	16th Conference on Atmospheric and Oceanic Fluid Dynamics
8-12 June, 2009	Stowe, VT	17th Conference on Atmospheric and Oceanic Fluid Dynamics
13-19 June, 2011	Spokane, WA	18th Conference on Atmospheric and Oceanic Fluid Dynamics
16-21 June, 2013	Newport, RI	19th Conference on Atmospheric and Oceanic Fluid Dynamics
14-19 June, 2015	Minneapolis, MN	20th Conference on Atmospheric and Oceanic Fluid Dynamics
26-30 June, 2017	Portland, OR	21st Conference on Atmospheric and Oceanic Fluid Dynamics
24-28 June, 2019	Portland, Maine	22nd Conference on Atmospheric and Oceanic Fluid Dynamics

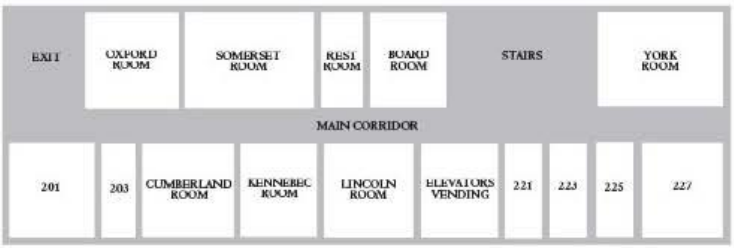
LOBBY & CONVENTION HALL LEVEL



CASCO BAY EXHIBIT HALL - G-3 LEVEL



2ND FLOOR FUNCTION ROOMS



BY THE BAY
HOTEL & CONVENTION CENTER

Holiday Inn 88 Spring Street Portland Maine 04101-3924
(207) 775-2311 • 1 800-345-5070 • www.innbythebay.com

Local Restaurants and Coffee Shops:

- Little Tap House: 106 High St, Portland, ME 04101
- Vinland: 593 Congress St, Portland, ME 04101
- Five Fifty Five: 555 Congress St, Portland, ME 04101
- Emilista: 547 Congress St, Portland, ME 0410
- Tiqa: 327 Commercial St, Portland, ME 04101
- David's Restaurant: 22 Monument Sq STE 600, Portland, ME 04101

Local Coffee Shops:

- Coffee By Design: 1 Diamond St, Portland, ME 04101
- Bard Coffee: 185 Middle St, Portland, ME 04101
- Starbucks: 594 Congress St, Portland, ME 04101