American Meteorological Society



31st Conference on Severe Local Storms

21 - 25 October 2024

Virginia Beach, VA and Online

Marriott Virginia Beach Oceanfront Resort

31st Conference on Severe Local Storms
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Welcome to the 31st AMS Conference on Severe Local Storms! We are excited to be able to be back to a regular cadence of meeting together every 2 years, and we hope that you all take advantage of the numerous informal and formal events and sessions throughout the week.
In particular, we hope that students and early-career scientists take advantage of the purposeful and deliberate opportunities to network, both with each other and more seasoned members of our community. Key events to check out include the Sunday evening ice cream social, the Monday evening ice breaker reception, and the Wednesday evening women's dinner. We encourage all attendees to try and get to know someone new during this week.

The community's enthusiasm for this conference continues. We received 335 abstracts and 229 talk requests; while a decrease from the 2022 Santa Fe conference (375 abstracts and 256 talk requests), this volume nevertheless indicates substantial ongoing innovation and deep commitment to the science of severe storms. We are especially heartened by the increased share of abstracts submitted by students (36% this year compared to 27% in 2022) and their increasingly prominent role in oral presentation slots (36% this year compared to 28% in 2022). Furthermore, women are also seeing gains in terms of representation in oral presentations (30% this year versus 26% in 2022). We are also excited by the increasing levels of international participation, with attendees from Australia, Europe, Asia, and South America, including students. This substantial diversity in participants and emphasis on those still building their careers highlights this year's conference theme: Supporting the Next Generation of Observations, Theory, and Practice. We have been purposeful in expanding speaking and leadership opportunities for students and early career scientists, both in preparing for as well as at the conference and are excited to see the fresh discourse that will ensue. The addition of sessions on risk and communication of severe weather information as well as artificial intelligence/machine learning applications also aim to promote discussion of innovative ideas.

We greatly appreciate the work the Program Committee has volunteered to make this a fantastic scientific conference! We simply could not have done this without them. We are particularly grateful for those who aided in identifying and recruiting a diverse set of session chairs, including: Cameron Homeyer, Aaron Hill, Keith Sherburn, Anja Radler, Yuzhu Lin, and Rob Warren. The many special events throughout the week also could not have been organized without the help of a number of wonderful people; such events and people include: the opening ice breaker and food/beverage breaks throughout the week (Alex Anderson-Frey, Kenzie Krocak, Matt Flournoy, and Alicia Klees), the women's dinner on Wednesday night (Alex Anderson-Frey, Kristen Axon, Anja Radler, Melinda Berman, and Alicia Klees), student presentation judging (Addison Alford, Kenzie Krocak, Kim Hoogewind, Brian Squitieri, and Keith Sherburn), and the glorious return of Video Night (Robin Tanamachi and Dan Dawson).

Finally, we are indebted to AMS Meetings staff who have tirelessly guided us through the conference planning process, from initial location selection to program building to event planning and last-minute changes. We are particularly grateful to Jeiry Nin Gomera, Cati Iannarilli, Allison Milliken, Adam Kelly, and Jen Ives. Our sincere thanks to all of you at AMS!

Thanks to everyone participating in the conference both locally and virtually. We look forward to an amazing week and hope you find this a fun and productive meeting!

Your program co-chairs,
John Allen and Casey Davenport

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General Information

Online Program
Your in-person registration also grants you access to content remotely based on your registration package. Scan the code below and use your confirmation number and email address to log in.

Online Program

Events
There are so many great events happening throughout the week! Scan the QR code below to find out more information.

Events

Local Attractions
Looking for things to do, see and eat in Virginia Beach? Check out our Location and Accommodations page for some inspiration!

Location & Accommodations

Green Meetings
AMS is proud to share our Green Meetings Initiative! Scan the code below to learn more about AMS, Marriott and Virginia Beach.

Green Meetings

Connect
Follow conference updates on X @ametsoc and @AMSSevereStorms. Share your posts using the hashtag #AMS31SLS.

Conference Badges and Registration
All those in attendance of the AMS conference must register and wear the name badge associated with their registration package. Please wear your badge in a viewable spot at all times during the conference. As a reminder, during registration you agreed to follow the AMS Professional and Respectful Conduct and the AMS Commitment to Care.

Guest Policy - Guests will not be able to join you for sessions but may join you for functions to which all attendees are invited, such as receptions, poster viewings, and coffee breaks.

Uploading Presentations
Speakers who have not already uploaded their presentation file in Presenter's Corner and are attending in person may upload their presentations in the room they are presenting in. Uploading can take place before a session or during a coffee break at least 30 minutes prior to your session start time. There will be a Speaker Ready Room onsite in Dorsey where you can ensure that your presentation has been uploaded correctly.

General Information

Presenter Information

Scan the code below for presentation information, including poster hall set up and tear down times.

Presenter Information

Conduct at AMS Meetings

Need to report unprofessional or disrespectful conduct? Email conduct@ametsoc.org or text 617-606-4369. To read our full policy, scan the QR code below.

Code of Conduct

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 Allison Milliken at the AMS Registration Desk.

Inclusivity at AMS

AMS is committed 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".

Photo Release

From time-to-time, AMS uses photographs of conference events in its promotional materials. Unless this permission is revoked in writing to AMS, by virtue of their attendance all conference visitors agree to the use of their likeness in such materials.

Thank you and enjoy the conference!

Thank You to Our Sponsors

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AMS American Meteorological Society

Monday, 21 October			
	Seaside Ballroom Salon D	**Seaside Ballroom Salon E**	
	Perception and Risk Associated with Severe Weather		
8:15	Welcoming Remarks		8:15
8:30	1.1 Joseph E. Trujillo-Falcón		8:30
8:45	1.2 Makenzie Krocak		8:45
9:00	1.3 Christopher D. Wirz		9:00
9:15	1.4 Alicia M. Klees		9:15
9:30	1.5 Kristin M. Calhoun		9:30
9:45	1.6 Stephen M. Strader		9:45
10:00	**AM Coffee Break (Seaside & Big Band Prefunction)**		10:00
	Supercells I: Supercell Hazards and Environments		
10:45	2.1 Cameron J. Nixon		10:45
11:00	2.2 Christopher Nowotarski		11:00
11:15	2.3 David Topping		11:15
11:30	2.4 Nathan Wendt		11:30
11:45	2.5 Rachael Nicole Cross		11:45
12:00	**Lunch Break (Attendees on Own)**		12:00
1:15	**Poster Viewing (Seaside Ballroom Salon ABC)**		1:15
	Observations and Simulations of Destructive Near Surface Winds	**In-Situ Observations of Quasi-Linear Convective Systems**	
2:45	3A.1 Joshua Wurman	3B.1 Leanne Blind-Doskocil	2:45
3:00	3A.2 James G. LaDue	3B.2 Anna VanAlstine	3:00
3:15	3A.3 Hiroki SATO	3B.3 Sean Donald Melanson	3:15
3:30	3A.4 David J. Bodine	3B.4 Charles M. Kuster	3:30
3:45	3A.5 Andrew David Moore	3B.5 Joshua Huggins	3:45
4:00	3A.6 Melissa A Wagner	3B.6 Joshua S. Ostaszewski	4:00
4:15	**PM Coffee Break (Seaside & Big Band Prefunction)**		4:15
	Supercells II: Supercell Evolution	**Tornado Surveys and Damage**	
5:00	4A.1 Luke Justin LeBel	4B.1 Anthony W. Lyza	5:00
5:15	4A.2 Tyler James Pardun	4B.2 Harry Weinman	5:15
5:30	4A.3 Jasen Greco	4B.3 Michael J Pagnanelli Jr.	5:30
5:45	4A.4 Aaron W. Zeeb	4B.4 Timothy P. Marshall	5:45
6:00	**Sessions End for the Day**		6:00
6:00	**Student And Early Career Reception (Seaside and Big Band Prefunction)**		6:00
7:00	**Ice Breaker Reception (Seaside Event Terrace)**		7:00

Tuesday, 22 October			
	Seaside Ballroom Salon D	**Seaside Ballroom Salon E**	
	Low-Level In-Situ Observations and Measurements Near Severe Convection		
8:30	5.1 Michael C. Coniglio		8:30
8:45	5.2 Bobby Saba		8:45
9:00	5.3 Karen A. Kosiba		9:00
9:15	5.4 Todd A Murphy		9:15
9:30	5.5 Madeline Diedrichsen		9:30
9:45	5.6 Elissa Bartos		9:45
10:00	**AM Coffee Break (Seaside & Big Band Prefunction)**		10:00
	Climate Variability and Severe Storms		
10:45	6.1 Kimberly A. Hoogewind		10:45
11:00	6.2 Matthew Graber		11:00
11:15	6.3 Lena Wilhelm		11:15
11:30	6.4 Kacie Nicole Shourd		11:30
11:45	6.5 Michael J. Hosek		11:45
	Lunch Break (Attendees on Own)		
1:15	**Poster Viewing (Seaside Ballroom Salon ABC)**		1:15
	Severe Convective Storms Beyond the United States	**Novel In-Situ Data Collection**	
2:45	7A.1 Alexandra Anderson-Frey	7B.1 Rebecca D. Adams-Selin	2:45
3:00	7A.2 John T. Allen	7B.2 Sean M. Waugh	3:00
3:15	7A.3 Mateusz Taszarek	7B.3 Brenna Meisenzahl	3:15
3:30	7A.4 Krzysztof Piasecki	7B.4 Katherine McKeown	3:30
3:45	7A.5 Victoria Eugenia Caballero-Morán	7B.5 Samuel Emmerson	3:45
4:00	7A.6 John M. Hanesiak	7B.6 Vanna C. Chmielewski	4:00
4:15	**PM Coffee Break (Seaside & Big Band Prefunction)**		4:15
	Heavy Rainfall and Flash Flooding: Observations, Theory, and Forecasting	**Results from the TORUS Field Campaign**	
5:00	8A.1 Jenna Ritvanen	8B.1 Julia Buhrman	5:00
5:15	8A.2 James Correia Jr.	8B.2 Christopher C. Weiss	5:15
5:30	8A.3 Tyler Janoski	8B.3 Martin Satrio	5:30
5:45	8A.4 Jonathan J. Gourley	8B.4 Daniel M. Stechman	5:45
6:30	**Tuesday Evening Session Reception (Seaside & Big Band Prefunction)**		6:30
	Novel Investigations in Severe Storms: Will It Rotate?		
7:30	9.1 Matthew D. Flournoy		7:30
7:45	9.2 Michael M. French		7:45
8:00	9.3 Jana B. Houser, PhD		8:00
8:15	9.4 Matthew C. Brown		8:15
8:30	9.5 Jessica M. McDonald		8:30
8:45	9.6 Morgan Schneide		8:45
9:00	**Sessions End for the Day**		9:00

Wednesday, 23 October			
	Seaside Ballroom Salon D	**Seaside Ballroom Salon E**	
	Severe Convective Storms in the Eastern U.S.		
8:30	10.1 Kevin Knupp		8:30
8:45	10.2 Preston Todd Pangle		8:45
9:00	10.3 Lauren E. Pounds		9:00
9:15	10.4 Rachel L. Miller		9:15
9:30	10.5 Logan Twohey		9:30
9:45	10.6 Kayla Marie Wheeler		9:45
10:00	**AM Coffee Break (Seaside & Big Band Prefunction)**		10:00
	Tornadogenesis	**Observations and Modeling of Hail**	
10:45	11A.1 Paul M. Markowski	11B.1 Jannick Fischer	10:45
11:00	11A.2 Johannes Dahl	11B.2 Lydia Kate Spychalla	11:00
11:15	11A.3 Sung Min Moon	11B.3 Yuzhu Lin	11:15
11:30	11A.4 Guirong Yan	11B.4 Julian Brimelow	11:30
11:45	11A.5 Kristofer S. Tuftedal	11B.5 Martin Aregger	11:45
	Lunch Break (Attendees on Own)		
1:15	**Poster Viewing (Seaside Ballroom Salon ABC)**		1:15
	Insights into Severe Storms Using Satellite Data	**Convection-Allowing Models and Forecasting**	
2:45	12A.1 John Cooney	12B.1 Patrick C. Burke	2:45
3:00	12A.2 Pao K. Wang	12B.2 Patrick Skinner	3:00
3:15	12A.3 Melinda T Berman	12B.3 Jacob Vancil	3:15
3:30	12A.4 Kristopher M. Bedka	12B.4 Burkely Twiest Gallo	3:30
3:45	12A.5 Chase Calkins	12B.5 Steven J. Weiss	3:45
4:00	**Sessions End for the Day**		4:00

Thursday, 24 October			
	Seaside Ballroom Salon D	**Seaside Ballroom Salon E**	
	Novel Approaches to Simulating Supercells and Tornadoes		
8:30	13.1 Daniel T. Dawson II		8:30
8:45	13.2 Kiley Allen		8:45
9:00	13.3 Dominic Candela		9:00
9:15	13.4 Emily Lucy		9:15
9:30	13.5 Morris L. Weisman		9:30
9:45	13.6 Jonathan Tyler DeGraw		9:45
10:00	**AM Coffee Break (Seaside & Big Band Prefunction)**		10:00
	Novel and Unusual Applications of Artificial Intelligence		
10:45	14.1 Ryan Martz		10:45
11:00	14.2 Monika Feldmann		11:00
11:15	14.3 Mitra Nasimi		11:15
11:30	14.4 David T. Roegner		11:30
11:45	14.5 Jon Derek Loftis		11:45
12:00	**Lunch Break (Attendees on Own)**		12:00
1:15	**Poster Viewing (Seaside Ballroom Salon ABC)**		1:15
	Artificial Intelligence and Machine Learning: A New Frontier in Severe Local Storms	**Climate and Severe Storms: Future Projections and Trends**	
2:45	15A.1 James M. Kurdzo	15B.1 John M Peters	2:45
3:00	15A.2 Eleanor Salm	15B.2 Jiwen Fan	3:00
3:15	15A.3 Alexandra C. Mazurek	15B.3 Francesco Battaglioli	3:15
3:30	15A.4 Montgomery L. Flora	15B.4 Victor A. Gensini, PhD, CCM	3:30
3:45	15A.5 Aaron J. Hill	15B.5 Timothy H Raupach	3:45
4:00	15A.6 Anja T. Rädler	15B.6 Timo Schmid	4:00
4:15	**PM Coffee Break (Seaside & Big Band Prefunction)**		4:15
	Derechoes and Significant Wind Events	**Simulations Exploring Sensitivities of Severe Convective Environments**	
5:00	16A.1 Adam J. French	16B.1 Benjamin Stephen Henry II	5:00
5:15	16A.2 Andrew Wade	16B.2 Kristen L Axon	5:15
5:30	16A.3 Brian J. Squitieri	16B.3 Louis J. Wicker	5:30
5:45	16A.4 Keith Sherburn	16B.4 David E. Jahn	5:45
6:00	**Sessions End for the Day**		6:00
7:30	**Video Night Reception (Big Band Prefunction)**		7:30
7:30	**Video Night (Seaside Ballroom Salon DE)**		7:30

Friday, 25 October			
	Seaside Ballroom Salon D	**Seaside Ballroom Salon E**	
	Forecasting Severe Storms and Hazards	**Insights into Severe Storms Using Phased Array Radar Data**	
8:30	17A.1 Kelton T. Halbert	17B.1 Thea Sandmael	8:30
8:45	17A.2 Israel L. Jirak	17B.2 Anthony E. Reinhart	8:45
9:00	17A.3 Miles Epstein	17B.3 A. Addison Alford	9:00
9:15	17A.4 Curtis R. Alexander	17B.4 Laura Shedd	9:15
9:30	17A.5 Robert A Warren	17B.5 Jianhua Dai	9:30
9:45	17A.6 Pieter H. Groenemeijer	17B.6 Vitor Goede	9:45
10:00	**AM Coffee Break (Seaside & Big Band Prefunction)**		10:00
	Supercells III: Supercell Structure and Processes		
10:45	18.1 Andrew James Muehr		10:45
11:00	18.2 Jake Patrick Mulholland		11:00
11:15	18.3 William Kortright		11:15
11:30	18.4 Alex Schueth		11:30
11:45	18.5 Adam L. Houston		11:45
12:00	18.6 Nicholas A. Goldacker		12:00
12:15	Concluding Remarks		12:15
12:30	**Conference Adjourns**		12:30

Poster Listing - Monday | Tuesday

Poster Number	Day	First Name	Last Name
4	Monday	Rebecca	Adams-Selin
10	Monday	Emily	Allen
23	Monday	Meredith	Bean
28	Monday	Megan	Berry
1	Monday	Dillon	Blount
12	Monday	Harold	Brooks
49	Monday	Matthew	Brown
18	Monday	Michael	Coniglio
29	Monday	Erik	Creighton
13	Monday	Casey	Davenport
26	Monday	Mark	De Bruin
21	Monday	Ernani	de Lima Nascimento
44	Monday	Roger	Edwards
27	Monday	William	Faletti
45	Monday	Matthew	Flournoy
19	Monday	Brandon	Garcia
7	Monday	Christoph	Gatzen
35	Monday	Pieter	Groenemeijer
6	Monday	Nathan	Hitchens
15	Monday	Haniston	Holloway
47	Monday	Cameron	Homeyer
48	Monday	Cameron	Homeyer
17	Monday	Isabelle	Jernigan
39	Monday	James	LaDue
22	Monday	Anthony	Lyza
24	Monday	Andrew	Muehr
14	Monday	Ethan	ONeill
31	Monday	Leigh	Orf
37	Monday	Chris J.	Peterson
38	Monday	Kenneth	Pryor
30	Monday	Erik	Rasmussen
34	Monday	David T.	Roegner
32	Monday	Martin	Satrio
33	Monday	Martin	Satrio
25	Monday	Alex	Schueth
46	Monday	Michael	Self
16	Monday	Milind	Sharma
42	Monday	Miranda	Silcott
2	Monday	Brian	Squitieri
3	Monday	Matthew	Starke
5	Monday	Garrett	Statum
43	Monday	Hamid	Syed
9	Monday	Robin	Tanamachi
36	Monday	Justin	Van De Wiele
36A	Monday	Justin	Van De Wiele
41	Monday	Edward	Wolff
8	Monday	Kimberly	Wood
11	Monday	Riley	Worley
20	Monday	Conrad	Ziegler

Poster Number	Day	First Name	Last Name
82	Tuesday	John	Allen
71	Tuesday	Isaac	Arseneau
74	Tuesday	Devin	Bissell
64	Tuesday	Howard	Bluestein
59	Tuesday	Daniel	Cecil
57	Tuesday	Gabbie	Christo
65	Tuesday	Brandon	Cohen
83	Tuesday	Ernani	de Lima Nascimento
76	Tuesday	Austin	Dixon
79	Tuesday	Monika	Feldmann
93	Tuesday	Sean	Freeman
80	Tuesday	Thomas	Galarneau
89	Tuesday	Jianping	Guo
90	Tuesday	Dirceu	Herdies
54	Tuesday	Jana	Houser
72	Tuesday	Jason	Keeler
67	Tuesday	Kevin	Knupp
61	Tuesday	Karen	Kosiba
84	Tuesday	Matthieu	Lacroix
70	Tuesday	Therese	Ladwig
68	Tuesday	Luke	LeBel
88	Tuesday	Mel	Lemmon
63	Tuesday	Josiah	Melke
53	Tuesday	Ameya	Naik
62	Tuesday	Morgan	Schneider
77	Tuesday	Cory	Schultz
58	Tuesday	Andrew	Shearer
92	Tuesday	Keith	Sherburn
51	Tuesday	David	Sills
87	Tuesday	Filip	Skop
52	Tuesday	Jeffrey	Snyder
66	Tuesday	Matthew	Starke
56	Tuesday	Cornelia	Strube
55	Tuesday	Kevin	Thiel
78	Tuesday	Logan	Twohey
91	Tuesday	Robert	Warren
50	Tuesday	Christopher	Weiss
85	Tuesday	Henry	Wells
86	Tuesday	Henry	Wells
69	Tuesday	Louis	Wicker
73	Tuesday	Claiborne	Wooton
75	Tuesday	Fan	Wu
60	Tuesday	Joshua	Wurman

Poster Listing - Wednesday | Thursday

Poster Number	Day	First Name	Last Name
100	Wednesday	Martin	Aregger
107	Wednesday	Joe	Boomgard-Zagrodnik
113	Wednesday	Kelsey	Britt
137	Wednesday	Dominique	Brunet
98	Wednesday	Zachary	Chalmers
119	Wednesday	Adam	Clark
133	Wednesday	Brice	Coffer
136	Wednesday	Subhadarsini	Das
114	Wednesday	William	Faletti
134	Wednesday	Thomas	Galarneau
99	Wednesday	Scott	Ganson
115	Wednesday	Jidong	Gao
125	Wednesday	Forest	Garty
138	Wednesday	Mostofa	Kamal
111	Wednesday	Christopher A.	Kerr
135	Wednesday	Lauren	Kiefer
118	Wednesday	Kent	Knopfmeier
106	Wednesday	Matthew	Kumjian
121	Wednesday	Therese	Ladwig
131	Wednesday	John	Lanicci
120	Wednesday	Sophie	Löbel
108	Wednesday	Michael	Magsig
123	Wednesday	Christopher	Melick
103	Wednesday	Jessica	Meyer
130	Wednesday	Steven	Nelson
97	Wednesday	Lauren	Pounds
139	Wednesday	Tomas	Pucik
129	Wednesday	Martin	Rempel
128	Wednesday	Harald	Richter
124	Wednesday	Michael	Sessa
132	Wednesday	David	Sills
126	Wednesday	Bryan	Smith
116	Wednesday	Ryan	Sobash
105	Wednesday	Jacob	Sorber
109	Wednesday	Lydia	Spychalla
95	Wednesday	Kate	Stapleton
112	Wednesday	Derek	Stratman
102	Wednesday	Leah	Swinney
117	Wednesday	Yunheng	Wang
122	Wednesday	Kyle	Watson
101	Wednesday	Arthur	Witt
101A	Wednesday	Arthur	Witt
110	Wednesday	Nusrat	Yussouf

Poster Number	Day	First Name	Last Name
176	Thursday	Francesco	Battaglioli
153	Thursday	Daniel	Brown
171	Thursday	John	Broyles
162	Thursday	Jacob	Bruss
142	Thursday	Jacob	Carlin
142A	Thursday	Jacob	Carlin
151	Thursday	Brandon	Cohen
169	Thursday	Carlos	Cuervo López
174	Thursday	Wenjun	Cui
145	Thursday	Johannes	Dahl
181	Thursday	Daniel	Dawson
154	Thursday	Michael	Debertshäuser
178	Thursday	Monika	Feldmann
147	Thursday	Catherine	Finley
164	Thursday	Montgomery	Flora
165	Thursday	Montgomery	Flora
149	Thursday	William	Gallus
167	Thursday	Christoph	Gatzen
175	Thursday	Alex	Haberlie
170	Thursday	David	Harrison
155	Thursday	Jaime	Herriott
146	Thursday	Jana	Houser
168	Thursday	Adam	Houston
179	Thursday	Zhanxiang	Hua
166	Thursday	An Q	Kieu
141	Thursday	Kyle	Killion
156	Thursday	Scott	Loeffler
161	Thursday	Kelly	Lombardo
158	Thursday	Benjamin	Moose
144	Thursday	Eda	Oz
183	Thursday	Kyle	Pittman
163	Thursday	Corey K.	Potvin
173	Thursday	Clarice	Satrio
157	Thursday	Jacob	Segall
140	Thursday	Kacie	Shourd
152	Thursday	Micheal	Simpson
143	Thursday	Divya	Viswanath
180	Thursday	Songning	Wang
160	Thursday	Katie	Ward
172	Thursday	Jacob	Widanski
177	Thursday	Fan	Wu
148	Thursday	Ming	Xue
150	Thursday	James	Zinnbauer