

ASA Section on Statistics and the Environment Newsletter Winter Edition 2025

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Table of contents:

- Messages from Outgoing and Incoming ENVR Chairs
- JSM 2024 Debrief
- Highlights from the 2024 ENVR Workshop
- Upcoming ENVR Award Nominations
- ENVR 2024 Executive Board Members

Message from Outgoing ENVR Chair

Dear ENVR Section Members,

As the year draws to a close, I want to express what an honor it has been to serve as ENVR Chair in 2024. This year has been remarkable for learning from one another, developing new collaborations, and advancing the quality of statistical analysis in environmental sciences. Our time at the JSM in Portland was particularly inspiring, with opportunities to hear from leading figures in our field during both invited and contributed sessions. The Student Paper Competition showcased the brilliance of emerging statisticians, promising a bright future for our discipline. In October, we enjoyed a sold-out, richly-packed three days at the ENVR Workshop in Boulder, themed "Spatial Data Science for the Environment." Special thanks go to the organizing committee, our generous short-course presenters Jay Ver Hoef, Dale Zimmerman, and Michael Dumelle, who donated their time and expertise, and to Doug Nychka, whose influence we had the opportunity to reflect on and appreciate.

I also want to extend my gratitude to the ENVR Executive Committee for their substantial time and effort in coordinating the important work of our Section. So many people put in long hours to make it seem like ENVR runs effortlessly; in fact, things run smoothly because so many are so committed to their behind-the-scenes efforts. I am particularly grateful for the mentorship of Bo Li (2024 Past Chair) and the commitment and vision of Mikyoung Jun (2025 Chair).

I frequently tell people that one of the best parts of my career is working with people I both deeply admire and feel great affection for. The ENVR community is full of individuals striving to do good for the environment and for the people we share this planet with. As we enter a new year, I hope we can further our influence by advocating for sound statistical methods in environmental science and mentoring the next generation of environmental statisticians.

Wishing you a joyful and productive 2025.

William Christensen 2024 ENVR Chair

Message from Incoming ENVR Chair

Dear ENVR Section Members.

Happy new year!

It is my privilege and honor to serve as the chair of ENVR in 2025. Thank you for your ongoing interest in and support of the section and the ASA. Over the past year, as chair-elect, I have observed and learned a great deal about how the section operates. I have been deeply impressed and sincerely appreciative of the initiatives and activities accomplished by our past chairs, executive board members, and the entire ENVR community. Although we already have such an incredible community, there is always room for improvement. Please do not hesitate to reach out to me if you have any ENVR-related topics you would like to discuss. I look forward to hearing from you and working alongside all of you!

I would like to extend my heartfelt gratitude to William Christensen for his dedication and outstanding leadership as chair in 2024. I will do my best to uphold his legacy and that of all past section chairs and board members. A big thank you as well to all outgoing and incoming elected officers!

Cheers to another successful year in 2025!

Mikyoung Jun 2025 ENVR Chair

JSM 2024 Debrief

JSM 2024 was held in Portland, Oregon, and it was a resounding success for the ENVR community. Thanks to the efforts of the organizers and participants, ENVR featured a strong scientific program, including 4 invited sessions, 3 topic-contributed sessions, 11 contributed sessions, and 1 poster session. The in-person setting provided an excellent opportunity for our community to connect, interact, and strengthen professional relationships. ENVR continued its commitment to supporting junior statisticians and data scientists through the annual ENVR Mentoring Roundtable and the ENVR Student Paper Competition. We hope everyone enjoyed this in-person meeting and look forward to seeing you again at JSM 2025 in Nashville, Tennessee!

Soutir Bandyopadhyay 2024 JSM Program Chair



Figure 1: From left to right: Newly elected ASA Fellows Matthias Katzfuss and Andrew Finley; ENVR Distinguished Achievement Award recipient Amy Braverman; and one of the ENVR Early Investigator Awardees, Ander Wilson.



Figure 2: ENVR Student Paper Award winners (from left to right): Jacob Johnson (Brigham Young University), Julia Walchessen (Carnegie Mellon University), Michael Schwob (The University of Texas at Austin), Troy Wixon (Colorado State University), and Lucas Godoy (University of Connecticut).

Highlights from the 2024 ENVR Workshop

The 2024 ENVR Workshop, held at the National Center for Atmospheric Research in Boulder CO, was a wonderful gathering, with opportunities for learning, sharing, and connection. The workshop kicked off with the full-day short course "Spatial Linear Models for Environmental Data," taught by Jay Ver Hoef, Dale Zimmerman, and Michael Dumelle. The short course included instruction on both foundational principles and implementation in R, and all proceeds from registration fees were donated to support the attendance of early-career researchers at the Workshop. Invited sessions over the following two days included many of our most influential environmental statisticians presenting on state-of-the-art theory and practice, all while reflecting on the statistical foundations we build upon. The conference dinner was a feast of good food and a celebration of the influence of Doug Nychka, who has impacted so many of us with his mentoring, collaboration, training, and encouragement. An enjoyable hike in the beautiful foothills above the National Center for Atmospheric Research ended the successful weekend.

Special thanks go to the organizing committee, support staff at NCAR, our generous short course presenters, and to Doug Nychka. We are especially indebted to the NSF who supported the attendance of many early-career researchers, and to Whitney Huang for his substantial work in securing and dispersing they support funds.

For those who weren't able to attend (or want to experience it again!), the recordings of the sessions are available at

https://community.amstat.org/envr/events/workshops/envr2024workshop and photos of the event are found at

https://community.amstat.org/envr/events/workshops/envr2024workshop/photos650.

William Christensen & Eric Gilleland 2024 ENVR Workshop Co-Chairs

Upcoming ENVR Award Nominations

Every year ENVR solicits nominations for the ENVR Distinguished Achievement Award (DAA) (formerly, Distinguished Achievement Medal) and the ENVR Early Investigator Award (EIA) (formerly called the Young Investigator Award). Both are given in recognition of outstanding contributions to the development of methods, issues, concepts, applications, and initiatives in environmental statistics. The section uses a broad definition of environmental statistics--from theoretical/foundational through applications and policy--and seeks to recognize the full range of activities that academic, governmental, and industrial statisticians and scientists study in statistics and the environment. Environmental statistics is interdisciplinary, and outstanding contributions may occur outside of traditional disciplinary niches.

The upcoming award nominations will be announced in early 2025 with a due date in Spring 2025. As you think of your colleagues to nominate, refer to the <u>nomination criteria</u> as a guide.

2025 Elected Officers (ENVR Executive Board)

Chair: Mikyoung Jun, University of Houston

Past Chair: William Christensen, Brigham Young University

Chair-Elect: Peter Craigmile, Hunter College, CUNY Secretary: Toryn Schafer, Texas A&M University Treasurer: Pulong Ma, Iowa State University

Publications Chair: Ander Wilson, Colorado State University **Program Chair:** Abhirup Datta, Johns Hopkins University

Program Chair-Elect: Lyndsay Shand, Sandia National Laboratories

COS Rep (2024-2026): Ali Arab, The Georgetown University