

February 17, 2026 Joint Methods & CI Working Group Call

Attendees: Marc Cotnoir, Brittany Barker, Jody Peters, Josie Hughes, Will Hammond

Regrets: Chris Jones, Caroline Owens

Agenda:

1. Potential future CI/Methods working group activities -
 - a. Leapfrogging idea shared by Mike and Lenny in the Theory working group - learning pitfalls and avoiding reinventing the wheel by learning from other forecasting experts (e.g., American Meteorological Society, American Statistical Association) - this could be a review paper, series of calls, virtual or in-person workshop, etc. Needs a champion.
 - i. Marc is on AMS EF committee - looking at what AMS could/should do. Think working with other professional societies to make connections
 - ii. If we get a champion for this Josie can reach out to her organization to see if there is someone from the atmosphere/climate modeling side of things interested in helping
 - b. Parul Patil, student of Leah Johnson, has a new paper in press on "[Gaussian process forecasting of sparse ecological time series](#)." There was a workshop and Parul had a poster on this at the EFI2025 Conference that received a lot of interest. Perhaps this group could read/discuss the paper on an upcoming call. If Parul and/or Leah are available, it would be fun to talk more with them about the paper.
 - c. There was interest in continuing to discuss topics related to forecasting spatial data and thinking about data storage methods relevant to spatial forecasting. Here are some of the examples that came up. Do cogs make sense for a data format? What has worked for people who are working on a project at scale? What have they learned? And would it be good to circle back to the Forecast Standards paper to think about provenance and storage of lots of forecasts? With spatial data that can produce unlimited amounts of data/forecast - what needs to be kept, what needs to be reproducible, what needs to be documented so that others can reproduce?
 - d. Working with stakeholders and NGOs in a time of limited public funding. Mike SanClements' name came up and his work at NEON forecasting stream pollutants. The topic the group was interested in was that NGOs have a different perspective on what to focus on when things get tight, what do they wish ecological forecasters would do vs what do forecasters focus on.
 - i. Dave/Jody - reached out to Mike
 - e. Methods for delivering forecasts. The group was interested in discussing differences in sharing forecasts, e.g., R Shiny, other methods with Leaflet and Java servers, etc. Are there tools that are user-friendly and aren't slow?
 - f. The [METplus project](#) was shared by Caroline. This project has use cases around spatial data. It would be interesting to connect with the group to see if anyone on the project has an ecological perspective.
 - g. The [Data to Science program](#) was shared by Dave. The idea was to check in with Jinha Jung about the potential to present in a NEON science seminar that could also double for one of the

CI/Methods working group calls. It sounds like the NEON seminar series is booked pretty far out, so this will be something to wait on.

- h. Discussion - Brittany and Will are most interested in c and e in terms of project or papers to work on
 - i. Question so data storage came up with the spatial forecast challenge a couple of times. Had been using cogs
 - ii. Methods for delivering forecast - for forecast challenge, built the infrastructure, but didn't have a whole system to look at the forecasts
 - iii. This semester, Will is interested in putting together more documentation about the spatial forecast challenge. Will is going to GIS conference and a low hanging fruit plans to put together an R Shiny app
 - iv. Interesting to compare presenting forecast delivery
 - v. Brittany has been using R Shiny for delivering forecasts. Main problem to resolve is that it is slow to load the maps
 - vi. Need more packages or wrappers for java script. There are certain things that you need java script to be able to modify the maps. Brittany is using leaflet to make the maps
 - vii. Do we have people who know how to deal with the limits?
 1. Are there anyone who can provide guidance
 2. There are limits to the spatial data display
 3. Want to be able to have dozens of people to be able to view the map at the same time
 - viii. Brittany is working on this over the next few months so can provide updates to the group
 - ix. There is a thought that R Shiny is to provide a prototype, and that after the prototype is finalized then you move on to
 - x. This overlaps with the R2X - Research to Operations working group at the EFI2025 and the importance of having the infrastructure to making forecasts available
 - xi. Next call - show and tell of sharing forecasts
 - xii. Pivotal Weather (<https://home.pivotalweather.com/>) - might be a good example to look at. You can choose a model and pick a parameter. It is really easy. Is this the sort of example of the tool we want to be able to use?
 - xiii. Would like to develop a wish list of what capabilities would be useful for sharing forecasts
- i. From Josie, c and d is of most interest