

Open Radar Community Call

General Zoom Link - [Click here to join the meeting](#)

2025-09-11 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Zach Sherman / Argonne National Lab / @zssherman
- Alfonso Ladino / UIUC / @aladinor
- Scott Collis / ANL / @scollis
- Syed Hamid Ali / openradar / @syedhamidali
- Anna del Moral Mendez / NSF NCAR/ @adelmoral2
- Ting-Yu Cha/ NSF NCAR / @tingyucha
- Jen DeHart / CSU / @jcdehart
- Daniel Michelson / ECCC / @DanielMichelson
- Joe O'Brien / ANL / @jrobrien91
- Brenda Javornik / NSF NCAR / @leavesntwigs

Discussion (60 second updates)

- Max
 - Survey results -
https://docs.google.com/spreadsheets/d/1l-b_SEj2Inlg8MHsdPLAzfbDirKZWzug-qPOQL4WskY/edit?usp=drivesdk
 -
- Alfonso
 - Level I data to create a notebook on Computing radar moments
 - Open Radar Foundation.
<https://researchpark.illinois.edu/locate-here/enterpriseworks-incubator-1/>
 - Educational mission encompassing the Pythia Project
 - Develop new educational content (in Spanish, French, ...)
 - Workshops
- Scott:
 - Opening positions in the AMS radar STAC committee
- Brenda:
 - Radar Technology Workshop - NSF NCAR Radar
 - February - March 2026 NCAR
<https://www.eol.ucar.edu/Radar-Technology-Workshop>

<https://drive.google.com/file/d/1v3-YbyUURdHl6aFogNIXEBQaGiqk0Uq7/view?usp=sharing>

Agenda (see more information below)

- Survey results from AMS 41 Radar Conference (Max)
- Programme Committee yet for ERAD (Djordje)
- IQ Notebooks / workflows (work in progress)
- NCAR Radar Workshop

NSF NCAR Radar Workshop

[Radar Technology Community Workshop Website](#)

Planning committee is asking for your input: (Brenda sent an email with these questions and flyer)

1. What dates work for you
2. Attending in person or virtual
3. What's your interest
4. Would you like to present
 1. type of presentation, 10-15 minutes
 2. type of presentation: lightning talk (3 minutes)

IQ Notebook

- Data from NCAR EOL (Brenda)
- Data from Argonne (Bobby)
- LROSE has IQ processing applications: Brenda is working with Mike in October to learn these applications. Mike is taking personal time and working remotely for September.
 - Sprite - visualizes/displays time series data
 - Ts2Moments
 - Ts2NetCDF
 - TsMerge
 - TsConvert
 - Iq2Dsr
- *Should we form a learning group? Alfonso, Bobby, Brenda, Mike? Just to get things started then share progress with the group?*

2025-07-10 1500 UTC (10 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Jen DeHart / CSU / @jcdehart
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Brenda Javornik / NSF NCAR / @leavesntwigs
- Alfonso Ladino / UIUC / @aladinor
- Mike Dixon / NSF NCAR /
- Daniel W. / Meteoswiss

Discussion (60 second updates)

- Jen
 - LROSE grant closes at the end of the month
 - Working on LROSE gateway
 - LROSE overview manuscript close to submission
- Kai
 - Xradar PR's (maybe release soon, after merging)
 - <https://github.com/openradar/xradar/pull/284> (I want to merge this tomorrow latest)
 - <https://github.com/openradar/xradar/pull/276> (this one too)
 - Xarray enhancements, <https://github.com/openradar/xradar/pull/285> (a bit more text is needed in this one, but should be ready tomorrow, too)
- Alfonso
 - Radar Blog Post
<https://earthmover.io/blog/the-untapped-promise-of-weather-radar-data>
 - Supported streamed data in nexradlevel2 reader
<https://github.com/openradar/xradar/pull/280>
 - Opportunity to transform/convert NEXRAD level 2 archival (1990 - 2025) to ARCO format. (~1PB)
 - Anyone within the radar community interested in this?
 - Max :)
- Max
 - Copied over + built initial image for AMS Open Radar Short Course
 - see below
 - Attending SciPy this week - need to migrate more things to **pixi** - environment manager - easier to install than conda
- Brenda
 - Fortran airborne radar correction code: Converting over to Python code
 - Ecco - convective stratiform classification, did a 3D version and vertical pointing
 - In matlab, getting this into Python

- Mike
 - Got w-band system working in the parking lot
 - Working on netCDF conversion for TITAN
- Daniel W.
 - Radar intercomparison, magnetron vs. solid state
 - Not any major updates
 - Ground clutter tool could be added to PyArt
 -

Agenda

- Open Radar Short Course @ AMS Radar
 - <https://github.com/openradar/ams2025>
 - Registration is open! Hybrid available
 - We need 20 non-instructors to meet our minimum to hold the course
 - Early reg deadline of July 24
 - Daniel Michelson / ECCO is willing to give us some Canadian radar data (wind retrieval may not work)
 - Potential projects
 - QPE
 - QVP/CVP
 - tracking
 - Compositing
 - Example from PrePEP2025 Conference Course
<https://www2.meteo.uni-bonn.de/data/radar/prepep2025/gridding-compositing.html>
- Saturday evening (8/23/2025) meeting in hotel lobby + dinner; plan for post meeting debrief meeting
 - Discuss governance structure (<https://metagov.org/>)
 - Discuss platforms (NSF JetStream/ACCESS, 2i2c? What are the alternatives?)
 - Plan for short course
- Xradar release soon?
 - Kai can take the lead Friday morning (CEST) and have a release xradar 0.10.0
- NSF Solicitation
 - Talking about this a bit - Tier 2, max of 300K/year
 - Due November 14, 2025
 - What is pragmatic given the amount of funding available?
 - Max: Aim for support of the platform: Pythia is partnered with 2i2c; they build Binder and Jupyter; radar hack weeks - something longer than a traditional short course; bring more developers to the Open Radar Community.
 - No starting documents yet, just starting the discussions on strategy.
- General NetCDF question: Global dimension available to all subgroups? Does anyone have experience with this? Kai: xarray datatree: dimensions vs. coordinates. Can you provide a sample file? We could try to work with it.

- Mike is working in C++ NetCDF API Eric Bruning from Texas Tech (Tobac) may be trying to do something similar. Tracking lightning.
- Open CfRadial convention on this topic

2025-06-12 1500 UTC (10 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Alfonso Ladino / UIUC / @aladinor
- Bhupendra Raut / Argonne National Lab / @RBhupi
- Zach Sherman / Argonne National Lab / @zssherman
- Brenda Javornik / NCAR / @leavesntwigs
- Mike Dixon / NCAR / @mike-dixon
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer

Discussion (60 second updates)

- Max
 - Two summer schools
 - CAPE-K
 - BNF - <https://arm-development.github.io/arm-summer-school-2025/>
 - PyDDA compared to SAMURAI work that may lead to a paper (Mariko, Brenda Dolan) multidoppler intercomparison paper
- Alfonso
 - Working on Radar Datatree paper
 - CNG conference - showcase the Radar Datatree model
 - Earthmover summer internship
 - Release of raw2zarr Python library (transactions on data sets! To ensure data integrity)
 - Accepted AMS Radar abstract
- Bhupendra
 - Worked on CSU Radar tools, tobac
 - Tobac moving to xarray, new release coming soon
- Zach
 - Py-ART maintenance things, fixing various issues that pop up
 - Working on next Py-ART roadmap
- Brenda
 - Working on fortran to python code for airborne corrections
 - Working on LROSE ECCO - converting matlab to python

- LROSE team planning to attend in-person
- Completed intermediate Samurai workshop (link TBD)
- Mike
 - Pretty definite LROSE team will be able to make it
 - Working on netCDF data format with TITAN
 - Using converter, once this works, integrate into the algorithm
 - CIDD display outputs moving forward, QT-based, not ready for use yet
- Kai
 - [Xradar Universal Format reader](#)
 - Xarray stuff related to datetime/timedelta
 - In house work

Agenda

- Planning for the AMS radar meeting in Toronto
 - Accepted AMS Short Course - who can all make it?
 - Max, Alfonso, LROSE team
 - Timeline
 - Early July - copy over ERAD content, actions, etc. and share repo with folks
 - Late July - scope “projects/workflows” for afternoon time
 - Early August - finalize agenda, prep materials
 - Late August - finalize content, test, present
 - **Wind retrieval, QPE, tracking** as three big topics for the workflows
- Federal funding uncertainty - thoughts on founding something similar to the netCDF foundation?
 - “The NetCDF Foundation is dedicated to the support and advancement of the NetCDF software library and data format, essential tools for scientific data management and sharing. The Foundation will serve the global scientific community through continued development, maintenance, and promotion of NetCDF. We are applying for federal tax-exempt status under Section 501(c)(3) of the Internal Revenue Code.
 - We all hope that Unidata's funding is restored, providing continued institutional support for NetCDF. The NetCDF Foundation will work with and support our Unidata colleagues, providing assistance and backup distribution and documentation channels. If Unidata funding is further disrupted, the NetCDF Foundation can provide the support that netCDF users need.
 - The NetCDF Foundation offers paid NetCDF support plans for institutional users. See our website for more information: netcdf.org.”
 - Could we do an Open Radar Foundation ?
 - Want to be able to apply for grants, etc.
 - Yes! There is agreement to do this.
 - Structure - (501(c)(3) similar to 2i2c) ??
 - Maybe start a **Github** account to consolidate the various software that we use (LROSE, Michael Bell, PyArt, xradar, etc.) Mike would be happy to

work on this. Contact NetCDF and NumFocus folks for how to do this. Max can talk to NumFocus group at SciPy.

- Consider Vaisala, Barron, MeteoPress as instrument sponsors/donations/funding
- Kai is fully involved with this idea! Use the existing Open Radar Org account; consider upgrading the account as needed.
- Kai will consider moving wradlib into the consolidated Github repo, especially if this continues moving forward.
- We want to get moving on this as soon as possible. Max will pull together some notes, agenda, timeline on this effort for the next meeting.
- We need something that is NOT tied to any particular organization
- We could have a foundation, board, steering committee for this.
- Talking with NumFocus: explore how to deal with international partners.
- Let's **plan a discussion at the Toronto conference on this!!** Announce this at the conference: work with Daniel to advertise this. **Plan on Saturday meeting** space in the hotel lobby.
- NSF Open Science proposal update (deadline is Nov 14)
 - [NSF 25-506: Geosciences Open Science Ecosystem \(GEO OSE\)](#)
 - We think that NCAR can lead as PI
 - Will start these calls/talks again soon.
 - 15 page proposal; need to get an outline going by July 5th, Shared Google doc.
 - Could be a good opportunity to reference/use/mention the foundation/consortium?

Next meeting 2nd Thursday of the month.

2025-01-08 1500 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Lab / @rcjackson
- Brenda Javornik / NCAR / @leavesntwigs
- Alfonso Ladino / UIUC / @aladinor
- Scott Collis / ANL / @scollis
- Jen DeHart / CSU / @jcdehart

Discussion (60 second updates)

- Bobby
 - Attended AGU, presenting on doppler lidar work
 - Looking into complex terrain constraint for PyDDA

- Brenda
 - Interactive visualization - trying out dash + plotly
- Alfonso
 - Added some PRs to improve the NEXRAD reader
 - Finished the Raw2Zarr
 - [AMS talk](#)
<https://ams.confex.com/ams/105ANNUAL/meetingapp.cgi/Paper/457374>
 - Monday 11:30 to 11:45
- Scott
 - Installation of Chicago x-band radar system moving forward - 15 km from downtown, Argonne + UIUC + CSU
 - Developers conference to increase community software contributions!
 - Ryan May?
 - As a webinar?
 - Summer school in Alabama
 - Multidoppler radar
 - Would like to include SAMURAI, etc. We will be reaching out to chat about this. Week before Memorial Day.
- Brenda & Jen
 - Hosting LROSE workshop in New Orleans on Saturday
 - Hosting an intermediate Samurai tutorial
 - Aiming for Feb/March
- Max
 - Getting Py-ART 2.0 out the door
 - Presenting on the ARM Summer School next week at AMS

Try to meet at AMS (Sunday night) to discuss, upcoming collaborations

2024-11-13 1500 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Brenda Javornik / NSF NCAR / @leavesntwigs
- Jordi Figueras / Independent Radar Scientist / @jfigui
- Alfonso Ladino / UIUC / @aladinor
- Zach Sherman / Argonne / @zssherman
- Bobby Jackson / ANL / @rcjackson
-

Discussion (60 second updates)

- Brenda
 - Wrapped up development of interactive display using holoviews/bokeh/xradar
 - Neat example -
<https://openradar.discourse.group/t/cool-interactive-radar-visualization/517?u=mgrover1>
 - Moving legacy fortran code to do aircraft corrections
 - Looking into f2py
- Jordi
 - Quiet month, some updates to meteoswiss py-art
- Alfonso
 - Added lots of tests to readers in xradar
 - Made modifications to xarray-datatree
 - Improved nexrad level2 reader in xradar
 - Looking at doing the same in xradar
- Zach
 - Working on getting to 2.0
- Bobby
 - Writing up on QPE from SAIL paper
 - Working on CMAC for bankhead national forest site
- Max
 - Working with Zach on PyArt 2.0 release
 - New release of OpenRadar with Cfradial example with xradar and PyArt
 - Meeting summary article accepted to BAMS on summer school in Cleveland this past summer
 - Summer school event in May, 2025 in Huntsville, AL. Putting together projects now.
 - Short course training event in Tansmania in February (more aerosol focused).
 - Some work on governance, more to come.
 - La Jolla, CA, USA hackathon event next week. (insert link here?) NCAR, Pythia will have a presence here. Also, ocean science, bioscience will be involved. There is also useful information about how to run hackathons, post surveys, etc.
- Jen
 - Getting some sample files for thermodynamic retrievals
 - Holding an LROSE workshop at AMS Annual Meeting, Saturday, January 11, 1-5pm. Free please join! Or just drop in when you can.
 - Holding intermediate LROSE/SAMURAI workshop in the spring
 -

Agenda

- xradar/xarray discussion
 - Datatree is fully integrated into xradar, so datatree is no longer a dependency for xradar (please correct the wording here)

- “Prepare for read” functions (further discussions: Sigmet, nexrad, etc.)
- NSF call to support open science?
 - <https://new.nsf.gov/funding/opportunities/geo-ose-geosciences-open-science-eco-system/nsf25-506/solicitation>
 - Consider this for funding workshops, **Pythia**, etc.
 - Seems like a really good fit for our community!
 - Max and Scott Collis and Steve Nesbitt are working on some ideas, please join if you'd like.
 - Could this fund some of our meetings (Jordi)?
 - Deadline is Feb 14, 2025. And a second part of the call is due in November, 2025.
 - Maybe setup a separate meeting to continue this discussion.
 - Focus on funding the core infrastructure of our work
 - Max will post on the forum as well as send an email to this group specifically
- Max will also setup a poll for a separate meeting on governance work.

2024-10-09 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Laboratory / @rcjackson
- Jordi Figueras / Independent Radar Scientist / @jfigui
- Brenda Javornik / National Science Foundation National Center for Atmospheric Research (NSF NCAR) / @leavesntwigs
- Alfonso Ladino / UIUC / @aladinor **I need the zoom passcode!! (crocus)**
- Anna del Moral Mendez/ NSF NCAR/
- Zachary Sherman / Argonne National Lab / @zssherman
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Bhupendra Raut / Argonne National Laboratory / @RBhupi

Discussion (60 second updates)

- Bobby
 - Publishing results related to SQUIRE/QPE for the SAIL campaign
- Jordi
 - Pyrad accepts files coming from s3-buckets
- Brenda
 - LROSE team is making good progress on conda-forge packaging
 - Added item to agenda
- Alfonso
 - Working on datatree/zarr, working with xarray folks to find the bottlenecks
- Anna

- No updates
- Zach
 - Working on Py-ART 2.0 release
 - cmweather EOS article came out
- Julian
 - Working on work from ERAD to publish
- Max
 - Migrating ERAD content over to the Pythia cookbooks
 - Working with Zach on PyArt 2.0
 - Debrief with Pythia group after ERAD and thank you for hosting ERAD short course.

Agenda

- ERAD Short Course Feedback
 - [Survey Results](#)
 - Sheets results - <https://docs.google.com/spreadsheets/d/1F90EnhG-lnmX19Nt6cfKCF6Q-yoHKGxnMaC5BqNhMoM/edit?usp=sharing>
 - [Instructor feedback](#)
- Governance
 - Do we think this is needed? If so, thoughts on adopting the Jupyter model? (insert link)
 - Mission Statement
 - 3rd party entity to accept funds?
 - Thoughts
 - A lot of work here, but good to do for the community
 - As the group continues to grow, we will probably need some kind of structure
 - Elect a steering counsel that servers about 2 years. (ranked choice voting?)
 - Individual projects choose their representatives
 - What projects to accept as part of the group
- Radar Conference (Toronto, Canada, late August 2025) Session Topic proposal (session topic proposals deadline is **24 October**)
 - Multiple rooms?
 - Short course vs. session or both?
 - Tool kits, data, best practices, education component
- AMS 105th Annual Meeting (American Meteorological Society) (New Orleans, LA USA, 12 - 16 January 2025)
 - More discussion next call.
 - Watch for notifications for acceptance to EIPT radar program

Action Items

- Invite short course participants to next meeting
- Draft of a governance structure for the next Open Radar Community Call; goal is to have something to discuss at the radar conference in Toronto.
- Brenda: session proposal email to everyone.

2024-07-10 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Jordi Figueras / Independent radar scientist/ @jfigui
- Jen DeHart / CSU / @jcdehart
- Ting-Yu Cha / NSF NCAR / @tingyucha
- Brenda Javornik / NSF NCAR / @leavesntwigs
- Alfonso Ladino / UIUC / @aladinor

Discussion (60 second updates)

- Julian
 - Working with ICON + radar data
- Jordi
 - Daniel received data for the X-Band radar data for the short course
- Jen
 - Testing Samurai on shared cloud-based platforms
- Ting-Yu
 - Meeting with LROSE team next week
- Brenda
 - Developing notebooks for ERAD
- Alfonso
 - Working on intro xradar
- Max
 - Worked with Kai on spinning up the docker build for ERAD
- Daniel
 - BALTRAD works with NumPy 2.0

Agenda

- ERAD Short Course
 - <https://github.com/openradar/erad2024/issues/3>

2024-06-12 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Brenda Javornik / NSF NCAR / @leavesntwigs
- Jen DeHart / CSU / @jcdehart

Discussion (60 second updates)

- Kai
 - Instructors do not need to register, I'll pass the final list of instructors in late August/early September
 - ERAD facilities not available on Saturday, so other venue for possible dev meeting is needed
- Brenda
 - No major updates
- Jen
 - LROSE release at end of May
 - Working on scaling Samurai on science gateway / JupyterHub
- Zach
 - CVD radar colormaps paper was accepted
 - New gatefilter top of atmosphere
- Daniel
 - Brought team members to the call today
 - BALTRAD - compositing is now faster, otherwise not much to report

Agenda

- ERAD Short Course
 - <https://github.com/openradar/erad2024/issues/3>
- 2i2c for platform for ERAD (instead of NSF JetStream2 / ACCESS)
 - Install dependencies into container? Or try conda-forge packaging?
 - Ubuntu 22?
 - Max will send a poll to set up a meeting to sprint on the various software system installations
-

2024-05-08 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1

- Brenda Javornik / NSF NCAR / @leavesntwigs
- Alfonso Ladino / UIUC / @aladinor
- Bobby Jackson / Argonne National Lab / @rcjackson

Discussion (60 second updates)

- Brenda
 - Working on packaging LROSE on conda-forge
 - LROSE install PR for ERAD 2024 - <https://github.com/openradar/erad2024/pull/5>
- Alfonso
 - Working on improving opening datatree - running into issues with many nodes
- Bobby
 - MRR reader in xradar
 - Haven't looked at the LIDAR reader
 - Found some bugs in PyDDA code, put in minor version update
 - Willing to give a talk on PyDDA + EARNEST in July
- Gio
 - Looking at GPM data for ERAD - opened an issue
- Daniel
 -

Agenda

- ERAD Short Course
 - <https://github.com/openradar/erad2024/issues/3>
 - Good to include both Meteoswiss + Italian radar network
 - Work on

Action Items

-

2024-04-10 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Alfonso Ladino / UIUC / @aladinor
- Brenda Javornik / NCAR / @leavesntwigs
- Bobby Jackson / Argonne National lab / @rcjackson
- Kai Mühlbauer / University Bonn / @kmuehlbauer
- Zach Sherman / Argonne National Lab / @zssherman
- Ting-Yu Cha / NCAR / @tingyucha
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Jen DeHart / CSU / @jcdehart

Discussion (60 second updates)

- Alfonso
 - Sorting issues with open_iris_datatree
 - Might need to add a dedicated open_zarr to xradar
- Brenda
 - Working on conda-forge packaging
 - Mike put out latest release of LROSE, latest updates
- Bobby
 - Good to go with MRR PR
 - Awaiting release of open-radar-data
 - Working on mini-mpl reader
 - PPIs are a challenge with the transition data
- Kai
 - Visited radar site in Belgium - saw a C-band radar from there, very remote
 - 3 C-bands in the country
- Zach
 - cmweather - ready to go with review responses
- Ting-Yu
 - Assisting folks with using Samurai, working with NCAR CISL on optimizing code on this side
 - Optimizing for both CPU/GPU
- Julian
 - Working through ICON issues, polishing data from Turkish radars
 - Issues with melting layer + attenuation
- Jen
 - Ran a stress test with Samurai code, large IO issue
 - Sorting out where this is happening
 - Opening an issue about velocity texture on Py-ART
- Max
 - Py-ART - new release with lots of bug fixes
 - Looking at NumPy 2.0 compatibility
 -  The Open Radar Stack: Bringing Weather Radar Data into Pangeo
- Jordi
 - LP phase processing - updated the docs here, on the meteoswiss Py-ART
 - development branch
 - Update of documentation, added flexibility of one of the hard-defined parameters

Agenda

- ERAD 2024 Short Course Planning
 - Latest information - know where we can start with some datasets from Italy
 - Able to record the short course - audio + screen
 - Network connection + presentation system are safe

- Organizers are passing along the names and emails of participants
 - Pre-event survey
- Data
 - C1 radar in northern Italy, in a non-standard radar format
- Repo
 - Created this <https://github.com/openradar/erad2024>
 - <https://github.com/ProjectPythia/radar-cookbook/blob/main/environment.yml>
 - Build environment
 - Have a working docker image of LROSE from last ERAD
 - <https://github.com/openradar/erad2022/pkgs/container/erad2022>
 - Working docker image of LROSE for JupyterHub
 - <https://github.com/NCAR/lrose-circleci/blob/master/.circleci/images/build/lrose-hub-2024.Dockerfile>
- Meeting frequency
 - Now that we have the repo created, can chat more async
 - Once a month is good
 - Good to define a roadmap, opening an issue for this
 - <https://openradar.discourse.group/t/erad-2024-short-course-planning/425/7>
 - Kai adding a post here on the latest news + how to follow along
- Open Radar Discourse Discussion
 - Some issues with people not having python knowledge, direct messaging
 - Good to have an overview + template to ask a question
 - Might be good to have an unrelated topic

Action Items

- Test the ERAD build environment
- Put together draft of code of conduct/overview of the forum

2024-03-13 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Zach Sherman / Argonne National Lab / @zssherman
- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Lab / @rcjackson
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Jen DeHart / CSU / @jcdehart
- Alfonso Ladino / UIUC / @aladinor
- Brenda Javornik / NCAR / @leavesntwigs

Discussion (60 second updates)

- Zach
 - A few PRs for the test data packages (pkg_resources deprecated)
 - Opened issue for xradar (new MPL reader)
- Bobby
 - Working on Micro Rain Radar (MRR) reader for xradar
- Kai
 - Submitted short course proposal for ERAD 2024
 - Should hear back on 20 March
 - NEXRAD level2 reader similar to sigmet IRIS reader
 - How to move forward here?
 - Should be able to apply same approach to the MPL
- Julian
 - Working on simulations, looking for ways to correct ZDR for attenuation (especially in the melting layer)
 - Big drop in ZDR within the melting layer
- Jen
 - Edited some radar data and found a bug in HawkEdit
 - Getting resources for LROSE gateway squared away
 - Developing more interactive Jupyter notebook for LROSE + ERAD
- Alfonso
 - Submitted scipy abstract built around xradar + sigmet + zarr
- Brenda
 - Working on the LROSE gateway
 - Working on reading halo photonics data into LROSE + output to cfradial
 - Data is in ASCII files, reading in, converting, then evaluating
 - Starting with stares
 - Accessing data through thredds servers with python-based interactive display
 - Working on conda-forge package of LROSE for ERAD short course
- Max
 - Py-ART 2.0 design review
 - ARM Open Science summer school

Agenda

- ERAD 2024
 - Short course proposal submitted, waiting to hear back next week on the status
 - Ideas about using GPM data
 - Ideas about sigmet data
 - Ideas about NEXRAD data
 - Py-ART 2.0 submission to the technologies session
 - LROSE team considering submissions
 - Discussion about workflows
 - Robin T. from Purdue working on active-learning notebooks

- On sabbatical in Boulder
 - ERAD 2022 repo is working again - needed to pin all the versions to the versions of the past time
 - Needed to use the outdated containers from github
 - When we create the new containers, will work through the build issues, really should look into conda-build options
- New Readers in xradar
 - Nexrad level2
 - Max started with sectioning off the reader from Py-ART
 - Uses Py-ART reading things
 - Several things not read from the metadata (not necessarily needed)
 - Able to read everything from the level2 format
 - 2 different formats
 - Old format - uncompressed up to 2016
 - New format - compressed after 2016 (bzip2 compressed)
 - Py-ART approach
 - Read the hold file, then extract what is needed
 - Approach now
 - Just extract the required data to build the dataset, if data is requested, then it will grab it from the underlying file (lazy)
 - Still some issues + kinks here
 - JT looked into structuring the level2
 - Other helpful things
 - Lazy Dictionary things
 - Input different fields, returns a dataset (pyart radar fields to xarray dataset)
 - Prepare for read
 - Possible improvements on bzip2 side
 - Only read in small subset, go from there
 - Data is currently unmasked
 - The plan - check the similarities between these byte decoding
 - One difference in IRIS and NEXRAD
 - IRIS messages are all the same size
 - NEXRAD record sizes change!
- SciPy 2024
 - <https://www.scipy2024.scipy.org/>
- Pythia Hackathon 2024
 - <https://projectpythia.org/pythia-cookoff-2024/>

2024-02-14 1500 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Brenda Javornik / NCAR / @leavesntwigs / brenda@ucar.edu
- Zach Sherman / Argonne National Lab / @zssherman
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Mike Dixon / NCAR /
- Daniel Michelson / Environment and Climate Change Canada / daniel.michelson@ec.gc.ca
- Jen DeHart / CSU / @jcdehart

Discussion (60 second updates)

- Kai: I'm currently traveling by train, WIFI is not stable, almost not working, will try to just lurk with audio listening (it's very flaky, might not work, but nevertheless will stay as long as possible 😊)
- Brenda
 - Working on LROSE science gateway with notebooks!
 - Working on Jetstream 2 (NSF cloud)
 - Working on tutorials + notebooks (<https://github.com/nsf-lrose/lrose-hub>)
 - Notebooks are still under development and test, but have a look if you like!
 - Python interface for CIDD display
- Zach
 - Py-ART working on open issues and bug fixes
 - cmweather - working on responses there
 - New colormaps from Sam Gardner
- Julian
 - Working on long term stats of radars, running ICON model, setting up radar data here
- Mike
 - Hoping Michael Bell will be able to use some of the notebooks generated as a part of LROSE science gateway, scaling up to make it reproducible in the classroom
 - Funding some of the Unidata folks to get the jupyterhub running on jetstream2
 - Able to concentrate on development work, they work on the details
 - Maybe help understand what datasets are out there
- Daniel
 - Main developer for BALTRAD back on contract - still pretty quiet, but development work going on here
 - Quiet on FM301 front

- Max
 - Presented on xradar at AMS meeting
 - <https://astg.pages.smce.nasa.gov/visualization/eviz/usage/quickstart.html>
 - Interactive display
 - ARM Summer School
 - <https://www.arm.gov/news/facility/post/94553>
 - SciPy abstracts - Abstracts close Feb 27
 - <https://www.scipy2024.scipy.org/>
 - Project Pythia cookbook event
 - June 10-14 this summer
 - Xradar
 - NEXRAD L2 reader in progress
- Jen
 - Looking at notebooks for the classroom
 - More workflow focused for ERAD, can iterate here
 - Lots of modifications to Samurai (fix to terrain coming)
 - Michael merging in the thermodynamic features
 - Working with CISL, making sure things are optimized
-

Agenda

- ERAD
 - Abstracts open - <https://www.erad2024.it/>
 - Anyone planning on submitting one?
 - Still waiting on short course proposals - opening “soon”
- SciPy
 - Abstracts due Feb 27
 - Would be great to see someone submit one on xradar...
- Maintenance of existing short course repos
 - How do we fix the builds? This will make our lives easier before ERAD
 - Kai: I’m going to look into this the next weeks!

2024-01-10 1500 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Brenda Javornik / NCAR / @leavesntwigs / brenda@ucar.edu

- Gionata Ghiggi / EPFL / @ghiggi
- Bobby Jackson / Argonne National Lab / @rcjackson
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Zach Sherman / Argonne National Lab / @zssherman
- Joe O'Brien / ANL / @jrobrien91
- Alfonso Ladino / UIUC / @aladinor
- Jen DeHart / CSU / @jcdehart
- Bhupendra Raut / ANL / @RBhupi

Discussion (60 second updates)

- Kai
 - Spinning back up with the new year
- Brenda
 - Getting started with the new year!
- Gionata
 - Starting up new year, testing gpm-api https://github.com/ghiggi/gpm_api
 - Interested in the short course
- Julian
 - Working on QVPs still
 - Working with German radar data, comparing ground radars with satellite products
 - Running ICON with EMVORADO forward operator (trying to fix bugs)
- Zach
 - Py-ART - reviewing PRs
 - Mainly maintenance
- Joe
 - Spinning up with New Year
- Alfonso
 - Spinning up New Year
- Jen
 - Spinning up and holidays!
- Max
 - Py-ART maintenance work
 - RadTraQ maintenance
 - Xradar nexrad work
- Bobby
 - Cutting PyDDA 2.0 release, all xarray-based

Agenda

- Initial planning for ERAD 2024 → <https://www.erad2024.it/>
 - Short course has evolved quite a bit over the years, pretty package-centric right now

- Kai - suggestion to move to more workflow-centric
 - Mainly introductory, have some more advanced topics
- Suggestion - have a follow-up meeting that week
 - Opportunity to ask more questions
- Idea - have an open radar session at the meeting itself
 - Or alternatively submit an openradar abstract for a presentation showcasing available software and datasets
- Look into having a hackathon/developers meeting
- People interested
 - Kai
 - Alfonso
 - Julian
 - Bobby
 - Brenda
 - Gio
- Package updates
 - Xradar
 - NEXRAD reader
 -

2023-11-29 1500 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Brenda Javornik / NCAR / @leavesntwigs
- Bobby Jackson / Argonne National Lab / @rcjackson
- Alfonso Ladino / UIUC / @aladinor
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Kai Mühlbauer / University of Bonn / @kmuehlbauer
- Zachary Sherman / Argonne National Lab / @zssherman
- Joe O'Brien / Argonne / @jrobrien91

Discussion (60 second updates)

- Brenda
 - Tutorial on visualizing geoscience data with Python at AGU and AMS (Datashader and HoloViews?)
 - Focused on VAPOR and GeoCAT
 - Maybe post on the forum?
- Bobby
 - Working with MRR, not much on the PyDDA side
 - Would be good to present on some of these notebooks

- MRR code is difficult to work with
 - No documentation, setup installation
 - Example of pyopensci <https://www.pyopensci.org/>
- Alfonso
 - Checking + testing RHI functionality
- Julian
 - Working on ZDR calibration, trying to wrap it up
 - Working with QVPs, using the daily ZDR offsets, no smoothing
- Kai
 - Swamped with German weather service data processing, interpolating ERA data to polar coordinates
 - Helping with folks questions on the open radar discourse
- Zach
 - CVD manuscript submitted
 - Added polarization colormaps, as well as correlation coefficient
- Joe
 - Not much to update!
- Max
 - Open science call
 - Blog post - <https://blog.mgrover.dev/posts/2023/weathergami-chicago/>
 - ARM short course - <https://www.ametsoc.org/index.cfm/ams/education-careers/careers/professional-development/short-courses/open-science-in-arm-connecting-state-of-the-art-models-with-diverse-field-campaign-observations/>

Agenda

- Update on interactive radar display package
 - Thoughts on radinteract? InterRADct, RadXPlore, interRad, RadViz, RadPanel
- RHI intercomparison
 - Found a bug within the antenna transition handling with xradar
- Meeting frequency
 - Offset from xarray dev meeting

Action Items

- Scheduling the next meeting in early January
- Creating the interactive radar repo (examples to start)

2023-11-15 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Lab / @rcjackson
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Alfonso Ladino / UIUC / @aladinor
- Jen DeHart / CSU / @jcdehart
- Brenda Javornik / NCAR / @leavesntwigs

Discussion (60 second updates)

- Max
 - Open-radar-data new releases
 - RHI data + new data related to convective/stratiform classification
 - cmweather new releases
 - New rho_hv colormaps
 - Playing around with RHI examples for xradar
 - <https://www.ametsoc.org/index.cfm/ams/education-careers/careers/professional-development/short-courses/open-science-in-arm-connecting-state-of-the-art-models-with-diverse-field-campaign-observations/>
- Bobby
 - Implementing nested grids in PyDDA
 - Elevated vertical velocities near the boundaries... likely artifact of the boundary conditions
 - Might be good to release as is, then add enhancements from there
 - Near PR stage
- Julian
 - Dealing with calibration for many radars...
 - Found a few bugs in wradlib, minor release a few days ago
- Alfonso
 - Added DOW data to open-radar-data
 - Issues when working with mobile platforms with xradar
 - Multidimensional latitude/longitude
- Jen
 - Interested in adding more sample datasets to open-radar-data
 - Hybrid/virtual LROSE short course after AMS
- Brenda
 - No major updates, starting to work with APAR, HawkEdit displays
 - Testing HawkEdit - Karen + group trying this out
 - Mike wanting to move CIDD to Jupyter - testing out hvPlot + bokeh
 - MICA

Agenda

- How to deal with RHIs with xradar...
 - Multidimensional lat/lon
 - Calculating R/z
 - <https://github.com/ARM-DOE/pyart/blob/main/pyart/graph/radardisplay.py#L538C9-L538C9>
- Move to once a month?
 - Sounds good - still meeting in early December
 - First Wednesday of the month?

Action Items

- Intercomparison of RHIs - using the recent DOW RHI data
- Look into potential names for interactive radar displays

2023-10-18 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Lab / @rcjackson
- Zach Sherman / Argonne National Lab / @zssherman
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Alfonso Ladino / UIUC / @aladinor
- Jen DeHart / CSU / @jcdehart
- Bhupendra Raut / ANL/ @RBhupi

Discussion (60 second updates)

- Bobby
 - Working on nested grid retrievals in PyDDA using tree structure
- Zach
 - Working on ACT 2.0 - closing issues, getting PRs ready to go
- Julian
 - Updated workflow to wradlib 2.0 - no more problems
 - Dealing with ZDR calibration using DWD data, working with colleagues
 - Discrepancies between what is in the files and what they are finding
 - <https://projectpythia.org/radar-cookbook/notebooks/foundations/interactive-radar-visualization.html>
- Alfonso
 - Presenting on xradar + zarr (ARCO)
- Jen

- Brenda + team working on pushing HawkEdit forward
 - Mostly working on single files, also applying to broader workflows
 - Thinking about how LROSE fits in with APAR
 - Info in next LROSE release
- Bhupendra
 - Looking at SAIL radar data, doing KDP comparisons
 - Looking for high KDP cases from SAIL datasets
- Max
 - Py-ART 1.16.1 is out!
 - <https://arm-doe.github.io/pyart/examples/xradar/index.html>
 - Met with gpm-api folks - moving over to open radar organization

Agenda

- Xradar + Zarr (Alfonso)
 - https://docs.google.com/presentation/d/16VpPUqvjplw5ZaK5Zwjm5AcGnne8wBcS/edit?usp=share_link&ouid=101569251116771192200&rtpof=true&sd=true
 - Working with Colombian national radar network
 - How to concatenate?
 - The task name is not available in the sigmet reader
 - Take a look at the cfradial2 docs to see if there are best practices for volume time
- PyDDA (Bobby)
 - Creating nested grids with Py-ART + PyDDA
 - Look at adding an example in xradar for this - using Py-ART gridding + put into datatree
- Xradar Updates
 - Fixed upstream issue with datatree
 - Digging into the NEXRAD AWS reader
- Py-ART Updates
 - 1.16.1 now available - xradar release
- Wradlib Updates
 - Couple of bug fixes
 - Colorbar issue resolved
- For next meeting
 - Xradar + Py-ART integration

2023-10-04 1400 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Lab / @rcjackson
- Hamid Ali Syed / Purdue University / @syedhamidali

- Bhupendra Raut / Argonne National Lab / @RBhupi /braut@anl.gov
- Julian Giles / University of Bonn / @JulianGiles / jgiles@uni-bonn.de
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer / kai.muehlbauer@uni-bonn.de
- Joe O'Brien / Argonne National Laboratory / @jrobrien91 / obrienj@anl.gov
- Alfonso Ladino / UIUC / @aladinor / alfonso8@illinois.edu

Discussion (60 second updates)

- Bobby
 - Working with UW Milwaukee folks on PyDDA retrievals
 - Tensorflow engine in PyDDA leading to larger updraft/downdraft values
 - Using Tensorflow optimization here to help
- Hamid
 - Added cfradial1 exporter - it works!
 - [Example Notebook](#)
 - Contributed ERA5 integration to PyDDA
 - [Example Notebook](#)
- Bhupendra
 - Working with SAIL + TRACER radar data from ARM
 - Working with tobac here as well
 - Looking at new algorithms. ([PyREClass](#) Github)
- Julian
 - On vacation for a while!
 - Working with wradlib 2.0, updating scripts to 2.0
- Kai
 - Busy week last week - had 3 releases
 - Included Xarray, Xradar, and Wradlib
 - Have a radar polarimetry course at University of Bonn, refactored to wradlib 2.0
 -
- Joe
 - Development of variable column vertical profile which will allow users to specify how many azimuth and distance gates are used to define column above location
- Max
 - A good amount of progress on xradar integration with Py-ART
 - [Link to new example](#)
 - Link to new blog post about AMS Radar Conference
- Alfonso
 - Recent version of zarr with xradar
 - Leading a tutorial/short course in Colombia
 - Covering basics of Python, Jupyter, move to NumPy, Pandas, xarray
 - Using this to access data from public locations
 - Estimating rainfall rates using different toolkits
 - Also covering ENSO calculations
 - Working with Pythia to host cyberinfrastructure

Agenda

- Xradar Updates
- Wradlib 2.0 updates
 - Mainly using accessors throughout
 - Check out the recent documentation page
- Talks for next meeting
 - Xradar + Zarr - Alfonso
 - PyDDA Updates - Bobby

2023-05-23 1400 UTC (9 am US Central Daylight Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Alfonso Ladino / UIUC / @aladinor
- Bobby Jackson / Argonne / @rcjackson
- Zach Sherman / Argonne / @zsherman
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Joe O'Brien / Argonne National Lab / @jrobrien91
- Scott Collis / Argonne National Lab / @scollis

Discussion (60 second updates)

- Alfonso
 - Updates related to radar data tree structure - storing radar data on the cloud
- Bobby
 - Working on PyDDA cookbook - gridding issue
 - Issues with 1.15.1
 - Example data - XSAPR data
- Zach
 - Pushed out release (1.15.1)
 - Working on Colorblind friendly paper
- Kai
 - Wradlib 2.0 work
 - Hoping to finish by the end of next month
 - Finalized IRIS issues (with Julian, @JulianGiles) - convert to xradar
- Joe
 - Gave a tutorial ~ 1 month ago with UND grad students
- Scott
 - DOE communications - Py-ART select by Office of Science to be highlighted
 - Working with ARM + Comms office
- Max
 - AMS Open Radar Short Course
 - Revised schedule with BALTRAD

- Developers meeting Saturday August ...
- Py-ART release
 - Working on accessor for Py-ART
- Xradar blog post
 - Include link here

Agenda

- Project Pythia Cookbook event
 - Register before June 2nd
- Alfonso
- Kai - wradlib 2.0

2023-05-09 1400 UTC (9 am US Central Daylight Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Alfonso Ladino / UIUC / @aladinor
- Julian Giles / University of Bonn / @JulianGiles
- Bobby Jackson / ANL/ @rcjackson
- Zach Sherman / ANL / @zssherman

Discussion (60 second updates)

- Alfonso
 - Creating notebooks for xradar
 - Second notebook coming! Chat about in the agenda
 - Max reviewing the pull request this week
 - Submitted presentation on GPM algorithms
- Julian
 - Not much - on vacation
 - Comparing different radars around Turkey
- Bobby
 - Getting back to PyDDA notebooks - overhauling the user guide
 - Bobby submitted on comparing radar measurements with WRF (model/obs)
- Zach
 - Working on CVD paper
 - Submitted on color bar/colorblind friendly things
- Max
 - Few bug fixes to Py-ART
 - Xradar + Py-ART progress
 - Submitted radar cookbooks related talk to AMS Radar
 - Pushing forward on preparation for the AMS Open Radar Short Course

Agenda

- Alfonso - present notebook
- Project Pythia Hackathon
 - <https://projectpythia.org/pythia-cookoff-2023>

2023-04-25 1400 UTC (9 am US Central Daylight Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Kai Mühlbauer / University of Bonn / @kmuehlbauer
- Julian Giles / University of Bonn / @JulianGiles
- Joe O'Brien / Argonne National Lab / @jrobrien91

Discussion (60 second updates)

- Julian
 - Continued to work with Turkish radar data
 - Script to process data - lots of details that could be improved here
 - No nice way to ingest this (iris/sigmat file could use some updating)
 - Issue with some of the variables - very tedious
 - Put together an example using panel/hvplot with matplotlib backend to interactively plot PPI. Would be good to show something like this during the workshop.
 - [Check out this example](#)
- Kai

- Aggregating Turkish radar data - into daily files
- Found a way to convert iris data (2 byte integer) to unsigned integer of weather service
- Might need to enhance the iris backend a bit...
 - Add a PR if needed
 - Might come up with convenience function that uses desired metadata
- Joe
 - Processing data from SAIL field campaign in Colorado Rockies
 - Tutorial to UND students on open radar data (using ERAD materials)
 - Next Tuesday
- Max
 - Released Py-ART version 1.15.0 - xradar + open_radar_data as a dependency
 - Open-radar-data on conda-forge
 - Case selection for the AMS Open Radar Short Course (meeting on this after this)
 - Setup repo + CI for the AMS Open Radar short course

Agenda

- RadTRAQ overview - <https://github.com/ARM-Development/RadTraQ>
- AMS Open Radar Short Course Update
 - Repo setup
 - Sample data selected
 - Meeting after this to discuss next steps
- AMS Radar abstracts
 - Radar cookbooks + education related to these (Max)
 - Dual-doppler compared to satellite data (Max)
 - RELAMPAGO/CACTI
 - Joe submitting deriving Z(S) relationships abstract
 - Julian submitting Turkish/German related weather radar topic

—

2023-04-10 1400 UTC (9 am US Central Daylight Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Bobby Jackson / Argonne National Lab / @rcjackson
- Julian Giles / University of Bonn / @JulianGiles

Discussion (60 second updates)

- Bobby
 - Continuing the PyDDA user guide - gridded data + dealiased velocities
 - User guide walks through every step of the processing chain
 - Gridding is up on the website, working on the retrievals
- Julian
 - Able to cumulative CFAD - getting weird results calculating KDP
 - Using the Vulpiani method
 - Should check out RadTRAQ
 - https://arm-development.github.io/RadTraQ/build/html/source/auto_examples/plot_cfad.html#sphx-glr-source-auto-examples-plot-cfad-py
- Max
 - Put together new blog post on [Py-ART blog](#)
 - Identified case for Open Radar short course

Agenda

- Open Radar Short Course Update
 - [Link to availability poll for the next meeting](#)
 - Selected some sample data - UAH/NEXRAD data
- Next meeting - give a talk on RadTRAQ

2023-03-28 1400 UTC (9 am US Central Daylight Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Zach Sherman / Argonne National Lab / @zsshernan
- Joe O'Brien / Argonne National Lab / @jrobrien91
- Alfonso Ladino / UIUC / @aladinor
- Julian Giles / University of Bonn / @JulianGiles

Discussion (60 second updates)

- Zach
 - Nothing, releases here and there
 - Notebook to show how to read in radar data to prep for PyDDA
 - [Link to new example](#)
- Joe
 - Helping with PyDDA doc sprint, used dealiasing
 - Submitting PR later today!

- Alfonso
 - Working on new xradar example
 - <https://openradar-docs--102.org.readthedocs.build/projects/xradar/en/102/notebooks/Read-plot-Sigmat-data-from-AWS.html>
 - Working on workflow built around working with sigmet files
 - Getting files into single object
- Julian
 - 5 years worth of radar data in Germany (ODIM_H5)
 - 1 file per time step, per moment, per elevation
 - Running a script to concatenate, make this easier to deal with
 - Trying to objectively identify stratiform precipitation
 - Also using an algorithm for melting layer
 - Figured out an issue with high values near the ground, leading to odd results

Agenda

- Scaling sigmet radar data analysis
- Xradar blog post on the xarray blog (<https://xarray.dev>)
 - [Link to the blog post](#)

2023-03-14 1400 UTC (9 am US Central Daylight Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Kai Mühlbauer / Uni Bonn / @kmuehlbauer
- Alfonso Ladino / UIUC / @aladinor
- Julian Giles / University of Bonn / @JulianGiles
- Joe O'Brien / Argonne National Laboratory / @jrobrien91
- Bobby Jackson / Argonne National Laboratory / @

Discussion (60 second updates)

- Kai
 - Julian + Kai looking into issues related to IRIS sigmet reader, issues with how it behaves when reading from a single group vs. multi-file
 - Caching issues?
 - Dask delayed?
 - Once more details here, open an issue once there is a reproducible example
 - Wradlib 2.0 - moving to apply_ufunc instead of numpy arrays
- Alfonso

- Here to join the group! Seeing if there is anything to help with
- Working on PhD as well
- Little more time to spend on radar community, here to help
 - Experience with Dask!
- Julian
 - Processing years of radar data for project, mainly from Germany + Turkey
 - Sigmet/IRIS format
 - Check out this blog post - <https://www.coiled.io/blog/reducing-dask-memory-usage>
 - Not sure if applicable, but pretty neat
- Joe
 - Working on determining times where scanning radar is over vertical pointing radar - TRACER field campaign in Houston
 - Using gatemapper
- Bobby
 - Helping with different value added products (radar products) with Joe and Max
 - Doc sprint with PyDDA
 - Docs updated - <https://openradarscience.org/PyDDA/>
- Max
 - Py-ART release last week - fixed some smaller issues
 - Road to 2.0 roadmap, scope the accessor
 - Planning for the open radar short course at AMS - late august
 - SQUIRE - winter QPE product

Agenda

- An overview of Project Pythia + [the radar cookbook](#)
 - Let's make this less ARM-specific - open radar!
 - Hackathon - <https://discourse.pangeo.io/t/save-the-date-project-pythia-summer-hackathon/3241>
- [Planning for the AMS Radar Short Course](#)
 - Planning meeting 1 week from today - same time
- Alfonso working on Colombian radar network data
 - SIGMET files
 - Trying to read into xradar
 - Output to zarr
 - Great! Super helpful when trying to lazy load instead of sigmet
 - <https://github.com/aladinor/notebooks/blob/origin/master/multiple-sweeps-into-volume-scan.ipynb>
 - Something that can be a part of the xradar workflow
 - Maybe open an issue for to_zarr example
 -
 - Ideas for collaboration

- New examples!
<https://docs.openradarscience.org/projects/xradar/en/stable/usage.html>
 - Blog post
 - <https://openradarscience.org/blog/>
- Future ideas
 - Dask issues with sigmet

2023-02-28 1500 UTC (9 am US Central Time)

Attendees (Name / Institution / Github)

- Max Grover / Argonne National Lab / @mgrover1
- Vincent Forcadell / Meteo-France / @Vforcell
- Julian Giles / University of Bonn / @JulianGiles
- Joe O'Brien / Argonne National Lab / @jrobrien91
- Kai Mühlbauer / University of Bonn / @kmuehlbauer

Discussion (60 second updates)

- Kai
 - Recently finished complete porting of wradlib reading to xradar
 - Release 0.1 release of xradar
 - Working on removing deprecated code in wradlib
 - Tackling issues as they come up, but things are going very smoothly
 - Exploring German weather service radar software (POLARA)
 - QPE workflows, complete other thing (this in C++)
- Julian Giles
 - Postdoc, working with Kai, from Argentina
 - Using wradlib as an end-user
 - Evaluating models with observations across Europe. Investigating precipitation processes with polarimetric radar data.
 - Mainly working with German + Turkey radar data
- Vincent Forcadell
 - PhD student at MeteoFrance, working on hail detection
 - Attended ERAD 2022
 - Using Py-ART for research, for 3 years now, happy to join the community :)
 - Interested in getting involved with contributing!
- Joe
 - Working with the ARM program, and CROCUS!
 - Helping out with development with Py-ART
- Bobby
 - Involved with Py-ART, PyDDA development
 - Scientist at Argonne

- Zach Sherman
 - Mainly working on Py-ART
- Scott Collis
 - Science lead for Py-ART, helping with guidance
- Max Grover
 - Working on development of Py-ART, xradar
 - Involved in teaching short courses

Agenda

- What tools are everyone using?
 - Mainly Py-ART, wradlib, xradar
- Xradar discussion - short demo with Kai/Max
 - Data model overview - xarray as a first-class citizen
 - Built around datatree, using netCDF4 groups
 - Demo with different readers, georeferencing functionality
 - Demo with multiple volume scans in the same object - plotting
 - How to contribute
 - Vincent mentioned he is interested in helping
 - Mainly working with ODIM, NEXRAD files
 - In general - get more people working with it, testing it out, responding with feedback
 - Dealing with grids in xradar
 - Think this would be good!
 - Dealiasing...
 - Wrapping numpy code into xarray with `xr.apply_ufunc()`
- Good meeting time?
 - Good for Europeans currently - 4 PM local time
- <https://openradar.discourse.group/>
- Signup for demo for next meeting?
 - Radar cookbook (Max Grover)
 - Maybe showcase of `xr.apply_ufunc()`