AMS Open Radar Short Course

Date: Sunday August 24, 2025
Venue: Toronto Hilton
Course Title: Open Radar Short Course
Learning Objectives:

1. Present an overview of the latest available open-source software packages for radar data processing.
2. Learn to use some of these tools with guided exercises in a hands-on approach.
3. Develop a unique hackathon-style project with a small group

Prerequisites*:

- Basics of Python
- Basics of Linux Command Line

*provided to attendees before the meeting, if they are not already familiar

Course Description:
The course will discuss the principles of open science and provide an overview of the most mature and exciting open-source software packages available for radar data processing. It will have a hands-on approach and the students will be able to use the software packages themselves.

The first part of the day will focus on getting an overview of the ecosystem, followed by package-specific tutorials. The second half of the day will focus on specific workflow objectives, with some provided scaffolding, where participants will break into small groups and develop their own workflows using skills from the morning session.

Teachers:

- Maxwell Grover, Argonne National Laboratory
- Scott Collis, Argonne National Laboratory
- Joseph O'Brien, Argonne National Laboratory
- Robert Jackson, Argonne National Laboratory
- Alfonso Ladino, University of Illinois Urbana-Champaign
- Hamid Ali Syed, Open Radar Science Community
- Brenda Javornik, NSF National Center for Atmospheric Research

Program:

Time	Content	Speaker/Chair	Duration
09:00 AM - 09:15 AM	Welcome and Introduction	Max Grover	30 minutes
09:15 - 9:30 AM	Open Radar Science	Scott Collis	15 minutes
09:30 AM - 10:00 AM	Intro to Xradar	Alfonso Ladino	30 minutes
10:00 AM - 10:30 AM	Coffee Break		30 minutes
10:30 AM - 11:00 AM	Py-ART/wradlib	Hamid Ali Syed and Robert Jackson	30 minutes
11:00 AM - 11:30 AM	Pyrad Introduction	Jordi Figueras i Ventura and Daniel Wolfensberger	30 minutes
11:30 AM - 12:00 PM	LROSE Introduction	Brenda Javornik	30 minutes
12:00 PM - 01:30 PM	LUNCH	All	1 hour 30 minutes
01:30 PM - 02:00 PM	BALTRAD	Daniel Michelson	30 minutes
02:00 PM - 02:15 PM	GPM-API	Gionata Ghiggi	15 minutes
02:15 PM - 02:30 PM	Project Pitches	All	15 minutes
02:30 PM - 03:00 PM	Coffee Break	All	30 minutes
03:00 PM - 04:30 PM	Group work	All	1 hour 30 minutes
04:30 PM - 05:00 PM	Open slot, discussion, evaluation	All	30 minutes