HSF/IRIS-HEP Software Basics Training

July 8–9, 2024

Instructors:

- **Amanda Kis (University of Oklahoma)**
- **Amanda Ho**
- **Julia Christina Costacurta (Stanford University)**
- **Venkata Krishna Bijjam**

Mentors:

- **Andrés Ríos Tascón**
- **Richa Sharma**
- **Lera Lukashenko**
- **Alexander Moreno Briceño**

Local organising committee:

- **Sudhir Malik**
- **Jim Pivarski**
- **Alexander Moreno Briceño**
- **Richa Sharma**
- **Lera Lukashenko**
- **Holly Szumila-Vance**

THE CARPENTRIES

iris hep

HSF

HEP Software Foundation

If you aren't recording this on Zoom, enable captioning and start the recording ...

(just a reminder)

Everyone is Welcome

- You are physicists working in international collaborations. All of you should know this page:
  - [The CERN code of conduct](#)

- Built on a set of core CERN values ⟶

- Taken together, provide the basis for respect: respect for others, respect for the organization and respect for its mission.

- We encourage a culture of openness where all contributors feel free to engage in the discussion.
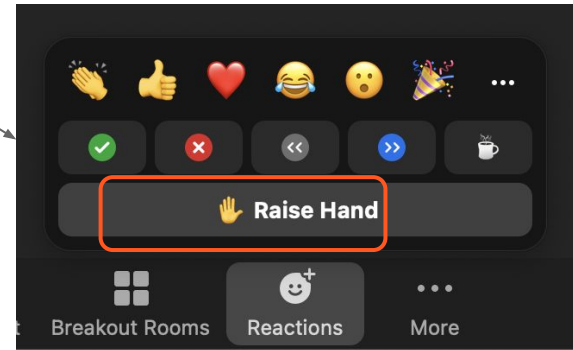- This event is also governed by [The Carpentries Code of Conduct](#)

We are here to help!

- Please use the **Slack channel** for longer questions during the session (it's easier to keep track for us than the zoom chat)

- Dedicated time for questions: Use the 'raise hand' feature to speak

Use the 'reply to thread' feature to keep everything sorted

There is no such thing as a "stupid question"!
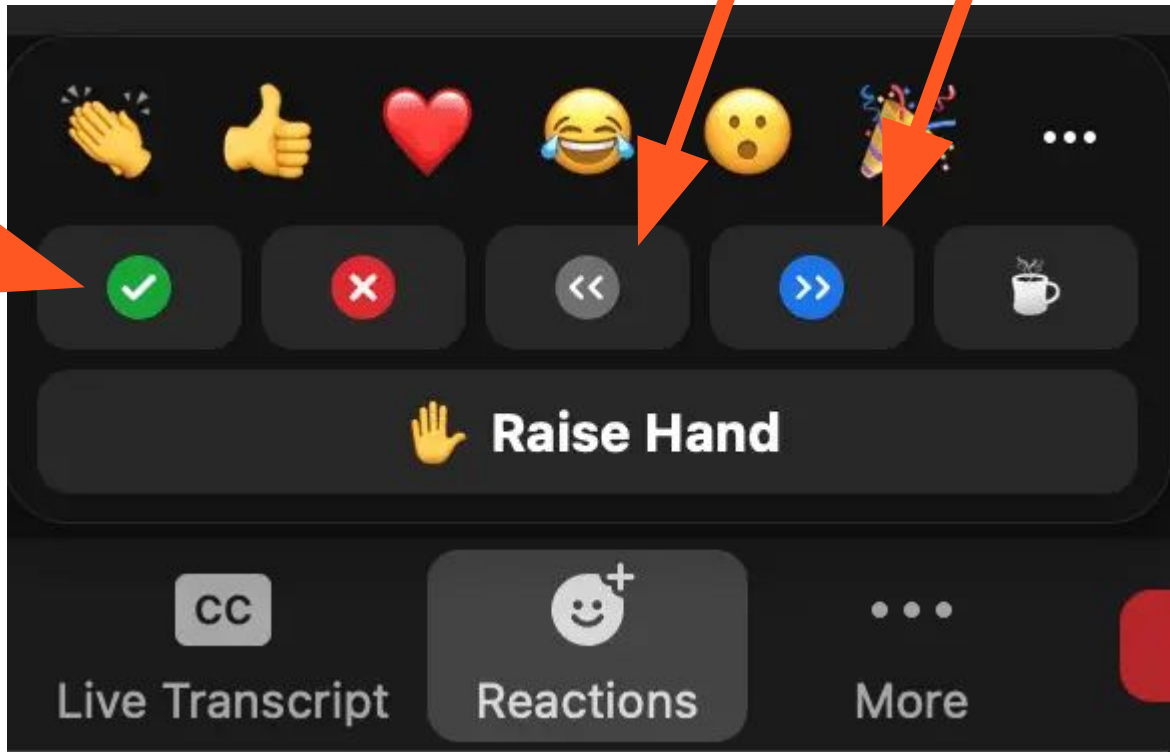
If you haven't done yet...

[1] Join the Slack channel: invite
If you have troubles to join, let us know now.

[2] Follow the setup pages
- Unix Shell (setup)
- Git (setup)
- Python (setup)

Fist Bump.
Monday: Let's do this.

Monday
Welcome

Help with Setup
[8:30 ET]

Introduction & group picture
[9:00 - 9:20 ET]

Unix
[9:20 - 10:30 ET]

Unix
[11:00-12:00 ET]

Git
[13:00-14:00 ET]

Git
[14:30-16:00 ET]

Tuesday

Python
[9:00 - 10:30 ET]

Python
[11:00 - 12:00 ET]

Python
[13:00 - 14:30 ET]

Python
[15:00-16:00 ET]

Meet your instructors!

Amanda Kis

Lecturer, University of Oklahoma School of Meteorology

Adjunct Lecturer, University of Oklahoma Department of Mathematics

My instruction: *Various levels and types of university meteorology and mathematics courses*

My expertise is: STEM education

A software and computing problem I'm grappling with: Further integrating coding (Python) and the results of coding into my courses

I've got my eyes on: Continuing to improve in Python

I want to know more about: Python, AI/ML, R, web development, pair and mob programming

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Amanda Ho

Software and Data Instructor, The Carpentries

My research: *Data Science Workshops, Bash, Python, R*

My expertise is: Data visualization, Research data management

A software and computing problem I'm grappling with: Incorporating data literacy in data science workshops

I've got my eyes on: The Replication Crisis, Open Science

I want to know more about: Databases, especially SQL

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Krishna Bijjam

Engineering Manager, The Hackett Group

My Instruction: *Git, Shell, SQL, Python, ML and AI at The Carpentries Workshops*

My expertise is: Data engineering, analytics, automation, data Science, business intelligence, cloud, AI/ML.

A software and computing problem I'm grappling with: Impact of data and AI on society and humanity.

I've got my eyes on: Gen AI and automation

I want to know more about: Leadership, Management and Entrepreneurship.

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Julia Costacurta

PhD candidate in Electrical Engineering, Stanford University

My instruction: *Workshops and courses in data science, scientific programming, and math*

My expertise is: computational neuroscience

A software and computing problem I'm grappling with: Transferring code from one numerical linear algebra package to another
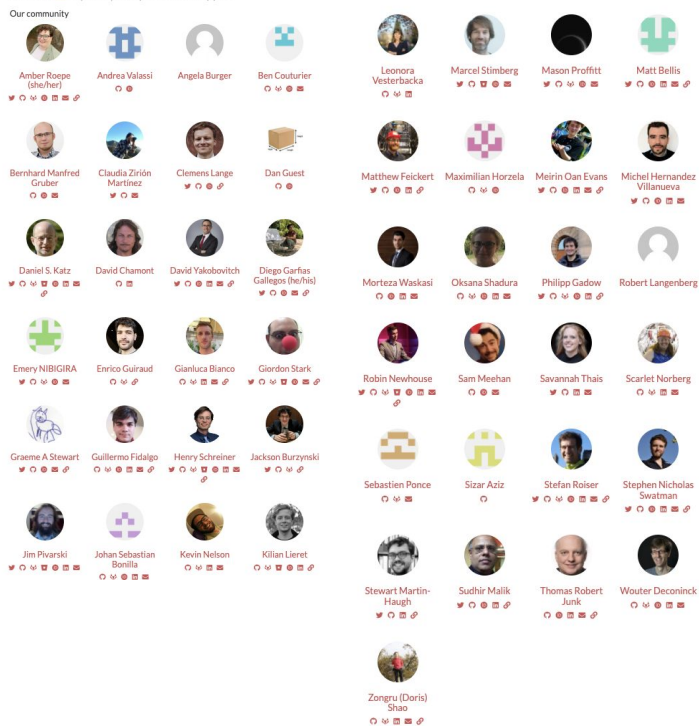
I've got my eyes on: Learning and gaining practice in effective teaching, applying to jobs 😱

I want to know more about: Impact of generative AI on teaching, interventions which benefit underrepresented students

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HSF Educator/Mentor community

https://hepsoftwarefoundation.org/training/educators.html

- ## Join our hackathons
  - ### In 1 or more topics
- ## Join our community
- ## Become training Educator
  - #### a mentor, facilitator, instructor
- ## Open a PR for any of our modules