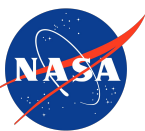












# SULI Computational Workshop

Peter Heuer & Nick Murphy  
(on behalf of the PlasmaPy Community)

We acknowledge support from:



- Grew up in Michigan
  - Side effect: I really like suspension bridges 
- Went to University of Michigan for undergrad
  - Side effect: I volunteered at a rabbit sanctuary 
- Went to University of Wisconsin for grad school
  - Side effect: I began reading science fiction poetry 
- Now work at Center for Astrophysics in Cambridge, MA
- I'm happy to talk with you about:
  - Python! 
  - How to contribute to an open source project
  - Puns about computational magnetohydrodynamics    

- Mix of a summer school and a hackathon
  - Tutorials
  - Hack sessions
- Website: <https://hack.plasmapy.org/>
  - [Registration](#)
  - [Schedule](#)
  - [Discord group](#)
- So far 320 registrations
  - We were expecting ~50–75! 🐱🐱🐱🐱🐱

# What is PlasmaPy?



plasmaPy

## Mission

*To grow an open source **software ecosystem**  
for plasma research & education*

<https://www.plasmapy.org/>

- Come to [Plasma Hack Week](#) next week!
- Come to PlasmaPy's...
  - [Office hours](#) (Thursdays at 2 pm EDT, except July 1)
  - [Community meeting](#) (Tuesdays at 2 pm EDT, except June 29)
- Join our [Element](#) chat
- [Request new features](#) on GitHub
- Organize community events
- [Contribute!](#)

## **Part 1: getting started with PlasmaPy (Nick)**

- Units and constants with Astropy
- Representing plasma particles with PlasmaPy
- PlasmaPy's formulary subpackage

## **Part 2: proton radiography with PlasmaPy (Peter)**

- Why proton radiography?
- Making synthetic proton radiographs

- If you completed installation instructions for your computer
  - Open Anaconda Navigator
  - Go to “Environments” tab
  - Click on arrow next to `SULI` environment
  - Select “Open with Jupyter Notebook”
  - Under “New”, select “Python 3”
- Open [Binder link](#) (posted in #computational on Discord)
- Use Google Colab (discussed in #computational)