

**AGENDA**  
**July 5-8 , 2023**  
**Sanford Underground Research Facility, E&O Building**  
**630 E. Summit Street, Lead, SD**

**Day 1**

**5:00 pm Pre-Workshop**

- Welcome & introductions
- Registration and create/login to Google account·  
Coding 2: refresh
- Norms, [APS STEP UP poster](#) & [Fermilab norms poster](#)
- [Introduction to Jupyter](#)
- Review from coding 1
- Skills: run, edit, & save a notebook

**Day 2**

**8:00 Coding activities**

- [Advanced applications of coding for data analysis](#)
  - [Creating a data activity for your classroom](#)

**11:15 All hands meeting**

- Share observations, challenges
- How do you think your students would handle these tasks?

**12:00 Break**

- Lunch
- Create/update your Quarknet.org account

**13:30 Dark Matter masterclass activity**

Introduction to Dark matter,  
Using coding to unlock the mystery of dark matter

**15:30 All hands meeting**

- Share observations, challenges
  - How do you think your students would handle these tasks?
  - End of Day Refection
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**Day 3**

**8:00 Welcome back**

- Recap from yesterday

- Morning Newspaper
- What stood out? Any new thoughts?

8:30 Dark matter master class

Doing the data analysis

What this means for students

12:00 Break

- Lunch
- Get help on coding issues
- Finish your coding activity and drafting an implementation plan

14:30 Share out

- Teachers take turns (5 min each) sharing your ideas for how coding might make it into your classroom.
- What will you do with your project from last year?
- Is there a new direction you want to look at?

15:30 All hands meeting

- Share observations, challenges
- Closing thoughts? Where to next?
- End of Day Reflections

16:00 Prep for neutrino day

Cloud Chamber

Radiation shielding

CRMD

Day 4

8:00 Neutrino Day

- Set-up
- Booth rotation

11:00 Break

- Lunch

16:00 All hands meeting

- Booth clean-up and debrief
- Closing thoughts? Where to next?
- End of Day Reflections