

Eclipse 2024 Workshop at Indiana U - Bloomington

Monday, April 8, 2024 - Monday, April 8, 2024

Multidisciplinary Engineering & Sciences Hall

Program

Workshop structure and Intended Audience:

This event is intended for science teachers and their more advanced students about grades 8-12. **All attendees must register individually, as we have an event capacity of about 80.** Registration is free, and lunch will be provided. **Please register by April 1.**

The talks will cover, at about the advanced high-school level, some exciting happenings in astronomy and related fields. This can be for professional development of teachers and kindles excitement for STEM fields and further study in students. Professional Growth Experience certificates can be provided by request for attendees. For demos, we will show how cosmic-ray and radiation detectors work and will make observations during the eclipse. Does the rate of cosmic rays change as the moon passes overhead? - we will measure that. We will also share our work in other areas of physics and engineering that we do at IU with demos and discussion. This will be a good opportunity for STEM-inclined students to consider further study at IU and/or our partner institutions.

The program will include presentations in the morning, followed by lunch (we will provide), with demos and discussion around eclipse viewing in the afternoon. If you have equipment you would like to demo and run at the event, please bring it along. There will also be opportunity and space outside to set up the more traditional telescopes and cameras for the eclipse. We are hoping for a cloudless day, but will be prepared with demos and activities that don't require it.

If you would like to participate in the demos or have an idea for you own, please check out our volunteer/demo spreadsheet and add your name/idea.

Eclipse2024 Demo SignUp

This event is organized for drive-in (well before the eclipse) and drive-out (same day, some hours after) in anticipation of traffic and scarce lodging for those nights. Parking is available onsite for free. If you want to find lodging in Bloomington, we will post what we know here, but can't help book. Best to do a one-day trip or be prepared for scarce lodging or creative camping. If you can't make the whole day, please let us know that and we'll plan for that.

**Program:
(almost final)**

9:30-10:00a: Welcome, Introductions, and Workshop details - Rex Tayloe/Scott Wissink, Indiana U.

10:00-10:30a: Presentation: Eclipse Science - Matt Caplan, Illinois State U.

10:30-11:00a: Presentation: Gamma ray bursts/Exoplanets - Anya Nugent, Northwestern U.

11:00-11:30a: Presentation: STEM education in Secondary Education - Spencer Perry, Indiana U.

11:30-12:00a: Presentation: Multi-messenger astronomy - Anne Schukraft, Fermilab

12:00-12:30: Lunch break

12:30-1:30: Lunch (continued) and short (~5mins each) demo presentations

1:30-2:30p: Demos and discussion

2:00-4:00p: Eclipse viewing

3:30-5:00p: More demos and discussion

5:00p: Adjourn

Related Links and sites:

Eclipse2024 Demo SignUp
NASA Eclipse Site
Great American Eclipse
Where-When (answer: Bloomington, totality begins 3:05pm ET)
Bloomington, IN eclipse site
Indiana University eclipse site
IU Astronomy Kirkwood Solar Live stream
Citizen CATE observation site
IU Luddy Livestreams
More detailed eclipse map

FAQ:

Is there parking? *We have ample parking at our building, MESH. IU Parking Enforcement will not patrol MESH's lot on April 8th, so you may park wherever you find space. We will police the entrance to our lot as needed.*

Will traffic be a problem? *There are currently no road closures announced on the Bloomington city or IU www pages. We do advise that you come to workshop from the beginning (~9am) and plan to stay until traffic subsides (~5pm?).*

Can I bring or help with a demo? *Yes, please. If you want to bring something that is small and doesn't need much explanation or space, just bring it. If more substantial, contact us to coordinate. See our list of demos here and sign up to help: Eclipse2024 Demo SignUp*

What are exact coordinates?:

Address of MESH: 2401 N Milo Sampson Ln, Bloomington, IN 47408-1368;

Sun: Altitude: 53.7 degrees, Azimuth: 214.5 degrees (34.5 west of south), Start of totality: 15:04:50EDT, End of totality: 15:08:53EDT,

Start of partial eclipse: 13:49EDT, End of partial eclipse:16:22EDT.

Will event take place, even if cloudy weather? *Yep, we have a good program of talks... and demos that will work in any weather.*