Heliophysics Citizen Science for the 2023 and 2024 Solar Eclipses and Beyond

The DEB Initiative Team:
- invented, funded, executed and published scientific results of the 2017 Citizen CATE Experiment.
- is a gender-balanced geographically diverse group of faculty, teachers, students and amateur astronomers.

The DEB Initiative is:
Faster: near real-time images available to the public and science community.
Better: wider field-of-view, more sensitive camera, sites outside path of totality, specific lead-in and follow-up science programs.
Cheaper: less than half the cost per site of our 2017 equipment (~$1800).

Good citizen science is published:

Our 2017 data is freely available at: https://www2.physics.siu.edu/cate/

Join the DEB Initiative!
We are seeking observation team leaders for sites both in and outside the path of totality in the US, Canada and Mexico.
Email: deb.initiative@gmail.com

We will train your team to:
- Observe with our COTS equipment package.
- Use community standard software such as SharpCap Pro and PlanetarySystemStacker.

All Team members participate in:
- Publications
- Observations
- Software Development
- Equipment Testing
- Data Analysis

Selected teams receive a complete imaging setup.

More information at: https://debinitiative.org

Dynamic Eclipse Broadcast Initiative
- Solar observations will be made to study oscillations and flares during the lead-in to ASE 2023 and TSE 2024.
- Exoplanet transits, asteroid and variable star light curves will be observed with +/-30 millimag errors.
- Lunar limb profile will be measured during ASE2023.
- Plasma acceleration in the corona will be measured in TSE2024, and correlated with disk activity from out-of-totality observing sites.
- Lunar eclipses will be measured to study variation in the Earth’s shadow and to create 3-D movies.


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