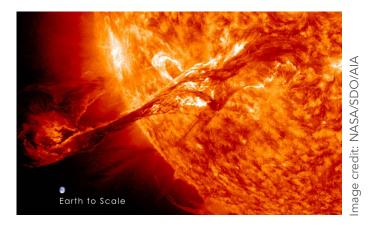
PUNCH Public Engagement Monthly Newsletter Issue 10: Aug 2023

Shining New Light on Diverse Views of the Sun with our Ancient & Modern Sun-Watching Theme



Did You Know....

...that solar flares and Coronal Mass Ejections (CMEs) are two different types of solar storms that sometimes occur together? Flares emit high-energy electromagnetic "light" especially in the ultraviolet and x-ray. In contrast, CMEs emit high-energy particles with mass, especially electrons and protons. Light from flares reaches Earth in a matter of minutes, but it can take 1-3 days for a CME to arrive at Earth. Fortunately, most CMEs, like this one captured by NASA's Solar Dynamics Observatory (below), are not aimed at Earth.



PUNCH Leaders Support SPD Outreach Session

The PUNCH Outreach Director, PI, and Mission Scientist all contributed to a plenary session convened by the SPD EPO committee at the recent Solar Physics Division (SPD) meeting.



Session presenters L to R: Mitzi Adams, Nicki Viall (Mission Scientist), Cherilynn Morrow (Outreach Director), Alessandra Abe Pacini, Milo Buitrago-Casas (Chair), Craig DeForest (PI).

PUNCH Outreach to Participate in SHIELD Webinars

The SHIELD DRIVE Center is a national and international collaboration of scientists who seek to understand more about the heliosphere, an immense shield protecting the solar system from the harsh galactic radiation. Similarly, the PUNCH science goal is to determine the cross-scale physical processes that unify the solar corona with the rest of the solar system environment (the heliosphere). In a combined outreach effort, PUNCH Project Scientist, Sarah Gibson, led the first of three webinars by sharing her life and career journey and giving advice to early career scientists. Over 90 people registered for the event. PUNCH Outreach Director, Cherilynn Morrow, will follow on September 22nd and NASA Program Scientist, Lika Guhathakurta, on November 17th. You can register for the webinars and access recordings on the SHIELD website.

Your Solar Photo of the Month

Every month we feature a photo <u>submitted by readers</u> that portrays a personal experience of the Sun.



Photo by Elena Provornikova

"I am always looking for different ways to engage my son Leo in learning and exploring the world around him. He did not know about the pinhole projector until I brought the PUNCH one to him. He was fascinated to learn that one can image the solar eclipse with it! This past weekend we had a perfect sunny day to play with the projector. (The stuffed doggie is named Qubik, favorite Leo's toy. Leo believes he is a smart and curious dog!)" - Elena Provornikova - Assoc. Investigator

Our 3-Hole PUNCH Pinhole Projector can be used indoors and outdoors and is fun for all ages. You can find the projector, printing instructions, facilitator guide, and resources for REALLY understanding pinhole projection on <u>our website</u>.