

PUNCH Public Engagement Monthly Newsletter Issue 9: July 2023

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



Did You Know....

...that the “solar wind” is made of both ionized atoms and electrons? The ions are made of the same elements as the solar corona, but they are invisible to the four [PUNCH mission](#) imagers. Electrons scatter sunlight much more effectively than the ions do, so they are what PUNCH will actually “see.”

Integrating Science and Outreach



Photo by Sanlyn Buxner

[PUNCH Outreach](#) held its third annual retreat in Boulder, CO at the same time as the [PUNCH 4 Science Meeting](#) allowing for a thoughtful integration of PUNCH science and outreach. [Heliophysicists](#) enjoyed engaging with our [activities and products](#) during an evening at [Fiske Planetarium](#). Outreach team member Geoff Skelton (above right) is leading an indoor demo of our [3-Hole PUNCH Pinhole Projector](#) to the delight of graduate student, Valmir Moraes (above left), and PUNCH [Associate Investigator](#), Elena Provornikova (above middle).

PUNCH Outreach also showcased our projector this month at the American Association of Physics Teachers ([AAPT](#)) meeting in Sacramento. Our [new indoor demos](#) complement the more traditional outdoor use and are intended to inspire changes in the way image formation is taught in introductory physics.

Our first batch of 18 [PUNCH Team Cards](#) were also a hit at the PUNCH 4 gathering. [SwRI](#) engineer Mary Hanson (left) and [Associate Investigator](#), Gilly Gilbert (right), both enjoyed finding their card in the deck.



Photos by Sanlyn Buxner

Empowering Native American Students



Photo by Cherilynn Morrow

Native American high school students and counselors participating in the 2023 [Upward Bound](#) summer residency program at CU Boulder gather around our PUNCH Outreach consultant ([Mr. Joe Aragon](#) from the [Pueblo of Acoma](#)) following his inspirational presentation to them about *Student Empowerment*. Earlier in the day, all 80 students participated in a multicultural, multi-sensory suite of [PUNCH Outreach activities](#) at Fiske Planetarium (16 July 2023).

Your Solar Photo of the Month

Every month we feature a photo [submitted by readers](#) that portrays a personal experience of the Sun.



Photo by Rick Fienberg

“Inspired by my experience with [PUNCH Outreach in Chaco Canyon](#), I set up my camera to record the summer-solstice sunrise as seen from my house in New Hampshire. I was shooting through a double-paned window, which explains the spurious reflections of the Sun’s limb. Once I catch all the equinox and solstice sunrises, I will mark the observing location and the sunrise points in a way that will last — though I doubt it will last 1,000 years!!!” – Rick Fienberg