



The Many Facets of Eclipse Outreach

LAURA PETICOLAS, SONOMA STATE UNIVERSITY

LAURAP@UNIVERSE.SONOMA.EDU

TWITTER: @LAURAURORA

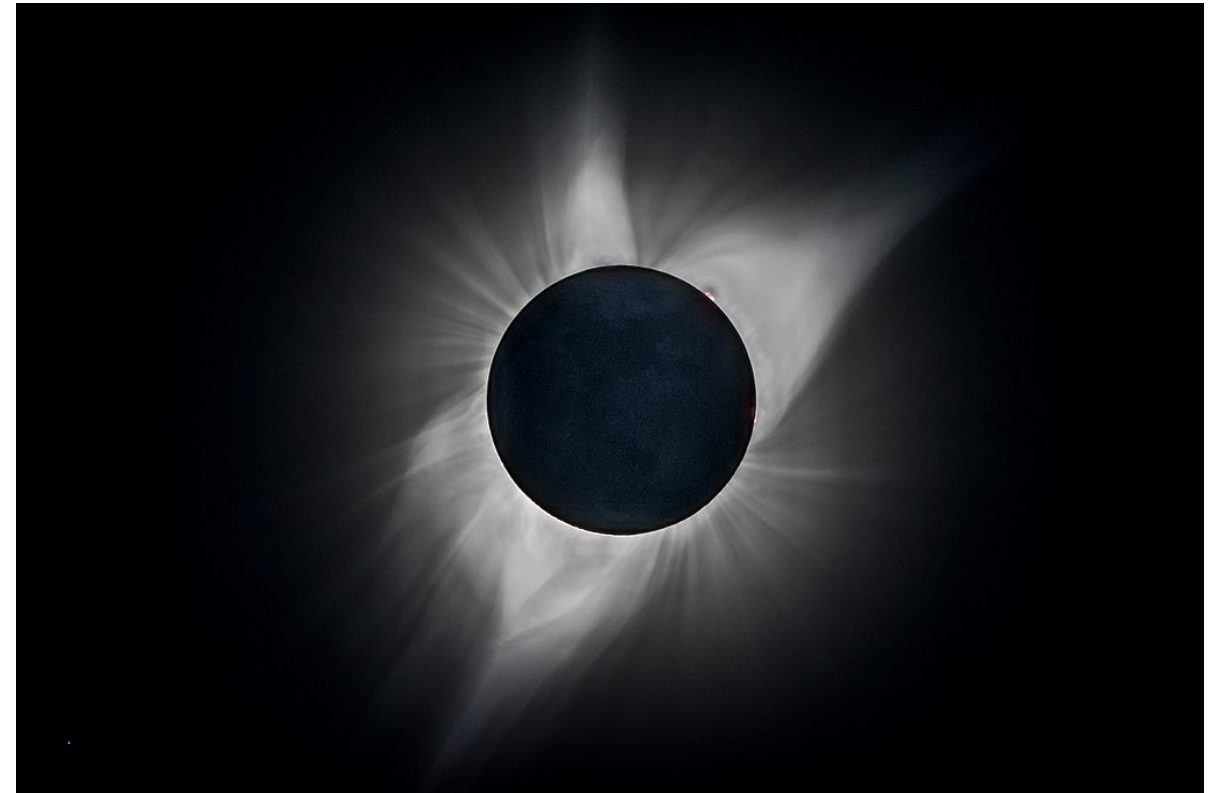




Thank you to my collaborators and partners

- ▶ Sons
- ▶ Husband
- ▶ Family and Friends
- ▶ Sonoma State University EdEon STEM Learning Team
- ▶ American Astronomical Society Eclipse Task Force
- ▶ University of California, Berkeley Eclipse Megamovie Team
- ▶ Indigenous Education Institute
- ▶ Google Eclipse Megamovie Team
- ▶ Astronomical Society of the Pacific Eclipse Megamovie Team
- ▶ The Cloud in the Crowd team
- ▶ The Eclipse Megamovie Volunteers

(If you are in my life, I will ultimately invite you to collaborate in STEM outreach)



2017 Total Solar Eclipse Photograph, courtesy of Eclipse Megamovie Team Member Brian Mendez, UC Berkeley



Embarking on Solar Eclipse Outreach

- ▶ Venture respectfully and cautiously outside your comfort zone
- ▶ Consider family, friends, or colleagues who work outside the astronomy or physics fields
 - ▶ Family member who lives under the path of totality—what connections do they have to their community?
 - ▶ What connections do your friends have within their communities?
 - ▶ Who are your colleagues in different fields than you are in? Are there ways you can collaborate with them on innovative eclipse activities?
- ▶ Consider locations or communities who may be left out
 - ▶ Have you already developed collaborations or partnerships with someone from these communities?
 - ▶ Who in your networks could help you connect to these communities?



NSF Search: Potential NSF-Funded Partners

The screenshot displays the NSF Awards Search Web-Interface. At the top, the NSF logo and tagline "WHERE DISCOVERIES BEGIN" are visible. A search bar contains the text "Eclipse". Below the search bar, a navigation menu includes links for "RESEARCH AREAS", "FUNDING", "AWARDS", "DOCUMENT LIBRARY", "NEWS", and "ABOUT NSF". A secondary menu offers "Simple Search", "Advanced Search", "Popular Searches", "Download Awards", "Send Comments", and "Award Search Help". The main content area is titled "Simple Search Results" and shows a search for "Eclipse". On the left, a sidebar lists "You Searched For:" (Eclipse), "Active Awards" (true), "Expired Awards" (true), and "Refined by" (NSF Organization: Direct For Education and Human Resources). Below this, a "Refine Search" section lists states: Arizona(1), California(3), Colorado(1), District of Columbia(1), and Florida(1), with a "Show More ..." link. The main results area shows a list of awards, including "Navigating the Path of Totality: Total Solar Eclipse Live from Micronesia", "Nationwide Preparation for the Eclipse of 21 August 2017", "STARS: Science Through Astronomical Research of Stars", "Eclipse", and "Improving Solar Physics Content in Astronomy Courses". Each result includes the award number, principal investigator, co-principal investigator, organization, start date, award amount, and relevance score. The interface also includes options to export results (up to 3,000 awards) in CSV, XML, Excel, or Text format, and a pagination bar showing "Page 1 of 2" and "Displaying 1 - 30 of 43".

Keyword/Filters

Eclipse

Directorate For
Education and
Human
Resources

Screenshot of the NSF Awards Search Web-Interface.

Example: Potential NSF-Funded Partners

THE CROWD & THE CLOUD: Citizen Science, Big Data and the Democratization of Research

Award Number:1422198; Principal Investigator:Geoffrey Haines-Stiles; Co-Principal Investigator:Waleed Abdalati, Erna Akuginow; Organization:Geoff Haines-Stiles Productions;NSF Organization:DRL Star Date:09/01/2014; Award Amount:\$2,085,614.00; Relevance:72.2;

- ▶ Eclipse Megamovie: trained volunteers to take photographs of the moon to ultimately take DSLR photographs of total solar eclipses.
- ▶ One episode of The Crowd & The Cloud featured two Eclipse Megamovie Volunteers.



CrowdAndCloud.org



NASA SciAct: Potential NASA-Funded Partners

NASA SCIENCE
SHARE THE SCIENCE

Science Topics News For Researchers Learners Get Involved Citizen Science About Us Español

Learn Science

Overview Teams Resources SME Map Opportunities Highlights Hotline Space Place

Division: All Divisions Phase: All Phases

Science Activation Teams

Key ● Universe ● Solar System ● Sun ● Earth ● All Science

Airborne Astronomy Ambassadors
Operating

American Museum of Natural History
Operating

Arctic and Earth SIGNS
Operating

Explore Team Resources

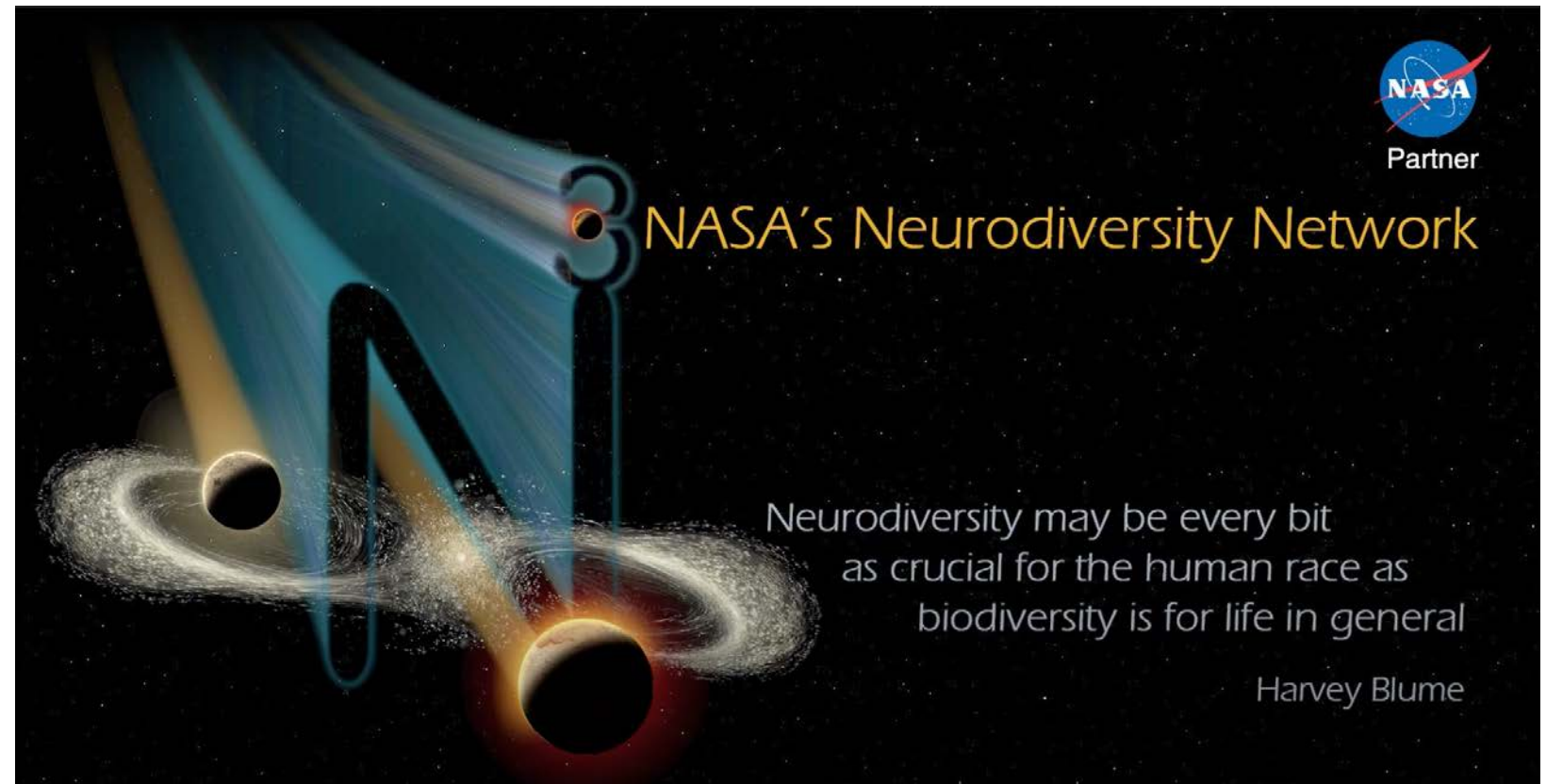
- > [Aerokats & Rovers Education Network](#)
- > [Airborne Astronomy Ambassadors Program](#)
- > [Arctic and Earth SIGNS](#)
- > [Eclipse 2017](#)
- > [Eclipse Videos](#)
- > [Girl Scout Stars](#)
- > [GLOBE Mission Earth](#)
- > [GMRI Real World Real](#)

Screenshot of the NASA SciAct Teams Website.



Example: Potential NASA-Funded Partners

- ▶ NASA's Neurodiversity Network, N³, provides pathways to NASA employment for learners on the autism spectrum.
- ▶ We, the N3 team, will engage neurodiverse teens, specifically autistic teens, in our 2023 solar eclipse activities. Perhaps you are connected to an autistic community and wish to partner.



NASA's Neurodiversity Network Logo and Guiding Quote.



Collaboration + Cold Calls = New Audiences

- ▶ Build trust & friendships with family, friends, neighbors, community members, especially those coming from a different culture as yours.
- ▶ Leverage your combined network and the internet to find others who may be interested in joining your intercultural collaboration.
- ▶ Make phone calls and send emails with information about your project, leveraging networked relationships.
- ▶ Visit those who respond to gauge interest and build a common plan.



*Photograph of the Early Eclipse Megamovie Team
Hosted by Google Partners.*

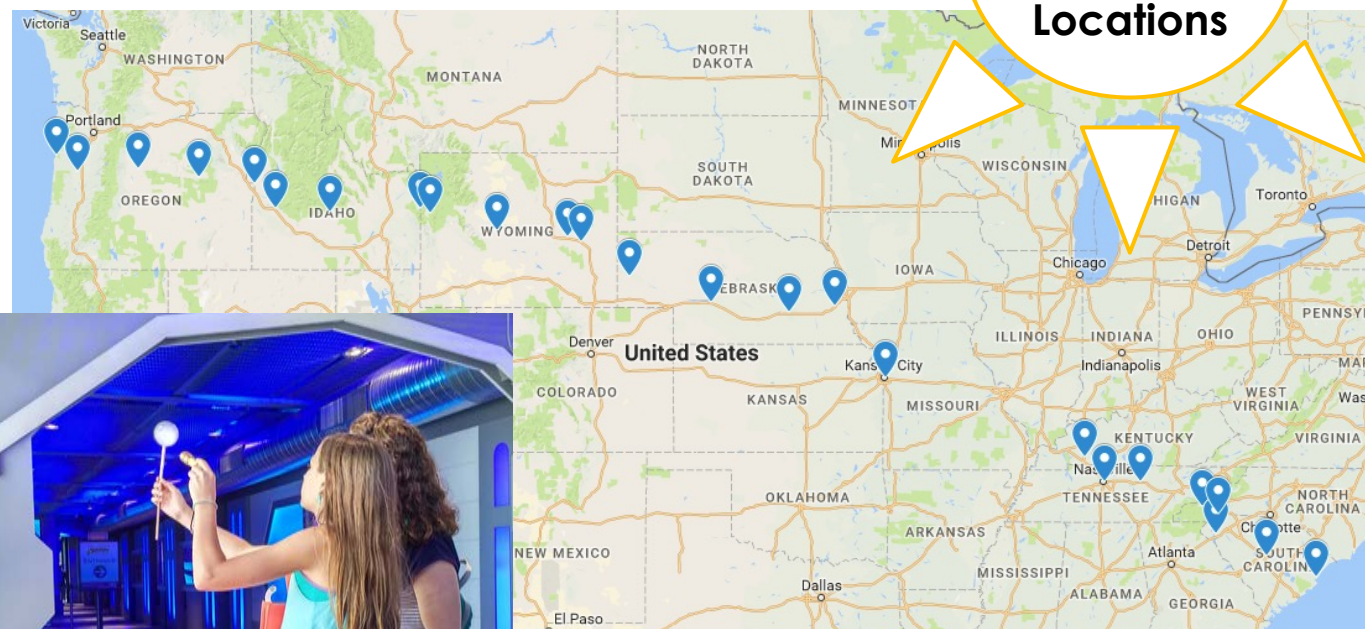


SONOMA STATE
UNIVERSITY

Example: Collaboration + Cold Calls = New Audiences

**Eclipse
Town Hall
Tour
Locations**

- ▶ The total Solar Eclipse path in 2017 went through Oregon, Nebraska, North Carolina, and South Carolina—and I had relatives in each of those states living under the path of totality.
- ▶ Using my family collaboration, I was able to determine who to cold call in their cities to talk to about setting up eclipse town halls.

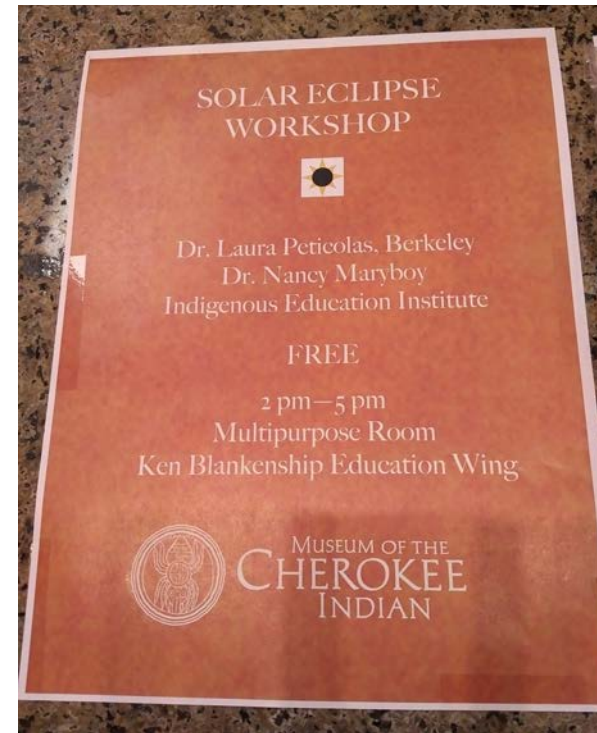


Left: Girl and her mom explore shadows at the Science City Outreach in Kansas City, KS.



Example: Collaboration = New Audiences

- ▶ Colleague, Nancy Maryboy (Navajo/Cherokee), has connections to North Carolina. She had worked with the Museum of the Cherokee Indian in Cherokee, NC.
- ▶ Using her connections, we gave an intercultural eclipse presentation at this museum.



Solar Eclipse Workshop flyer and Dr. Nancy Maryboy.



TIP: Collaboration + Cold Calls = New Audiences

- ▶ Eclipse Megamovie made cold calls a year out on several projects.
- ▶ We ran out of time.
- ▶ Two years is needed to forge new partnerships.
- ▶ Tip: Reach out to new audiences now.



Photograph of the Ashland, NC Library Eclipse Town Hall.