CMB-S4 Collaboration Education and Public Outreach

Juliet M. Crowell, <u>crowellj@uchicago.edu</u>



Education and Public Outreach

Overview

- Why get involved in outreach
- Impact of science outreach
- Outreach Reported 2019-2020
- Ways to get involved in 2021



Why get involved in outreach?

Scientists Who Volunteer Say:

- "I really enjoy sharing the science that I love with the public and inspiring young people to pursue careers in science." Sara Simon, Fermilab
- "I also feel like we have a responsibility to engage with our communities, especially those where these opportunities can be scarce." Sara Simon, Fermilab
- "I believe outreach is the key to demystify science and math and get young students to brave a science path in the future." Felipe Maldonado, Florida State University
- "When I give a public lecture, the intense curiosity of the audience reminds me how lucky I am to get to do this work. It revitalizes my own curiosity. And sometimes it leaves me feeling like a rock star." Lloyd Knox, University California Davis
- "The best feeling came from watching the lightbulb go off in the students' heads as they understood something. Having a successful learning exercise, where the students go the steps and actually understand the core concepts in the end is amazingly rewarding" – A Former Space Explorer Instructor, KICP/University of Chicago



Positive Impact

Thank you for teaching me about space and black holes. You made me want to go to space when I get older.

I learned lots of things. It was also fun. Even my parents don't know this much." — third grade student

My favorite feedback was from an undergraduate student who said that I was the reason that they had decided to go to grad school for physics.

GOOO

SPACE!!!

Whoo-hoo

I probably wouldn't have known how much I enjoy science and felt comfortable in a STEM field without the program. It was the first time I was encouraged to pursue scientific inquiry and was the beginning of my journey as an engineer." –Former Space Explorer Participant

Outreach Data Reported: 2019 - 2020

Types of Outreach

- Reddit (10K+ impressions)
- Live Streamed Events 4000-10000 attendees
- Saturday Physics 200 High School Students
- Girls STEM Events 100-200
- Summer Programs (K-I2, STEM)
- CMB-S4 summer research program for undergraduate students. (year 2017)



Outreach Opportunities 2021

Ways to Get Involved (Virtual)

- Project Exploration Career Talk (March-April) Juliet Crowell, <u>crowellj@uchicago.edu</u>
- Project Exploration Summer Camp (June 28 August 20) Juliet Crowell, crowellj@uchicago.edu
- Saturday Science Series (April) Felipe Maldonado, <u>fam I 4c@my.fsu.edu</u>
- 3D Telescope Design & Engineering (May/ June) Juliet Crowell, <u>crowellj@uchicago.edu</u>
- Space Explorers & Summer Camps Juliet Crowell, <u>crowellj@uchicago.edu</u>
- Science Friday (https://www.sciencefriday.com/) Juliet Crowell, <u>crowellj@uchicago.edu</u>
- Virtual lab tours (live and recorded) for K-12 audiences Juliet Crowell, crowellj@uchiago.edu
- Public Talks with science organizations, community organizations, STEM and STEAM programs.



Many Ways to Support Outreach

- Share and promote upcoming programs and events
- Make introduction to community partners and organizations
- Encourage projects lead by your graduate students
- Support behind-the-scenes tasks

Volunteering: Time Commitment

Sharing science resources (30min)

Talks/presentations (1-2 hours)

Saturday Science (2 hours)

Developing new programs (I hour/week)

Summer STEM Programs (3-4 hours/week)





Share 2021 Outreach events and programs: epoc@cmb-s4.org

Share your outreach data: https://forms.gle/tok17VDLaC6zXJ6B7

Thank you!



Juliet Crowell crowellj@uchicago.edu

Friday March 12: Outreach Sessions

- 12:00 12:30 pm (CT) Round Table (30 min)
- I 2:30 pm 2:00 pm (CT) Flagship Outreach Brainstorm (90 min)