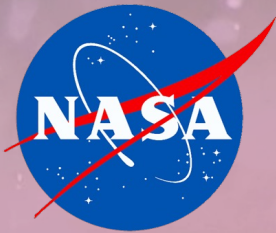


Demographics of Sagan Summer Workshop Attendees

Elise Furlan
Caltech/IPAC-NExSci



Caltech

25 Years of Exoplanet Science

JPL/Interferometry Science Center

- 1999: Interferometry Summer School
- 2000: Astrophysics with Optical Interferometry
- 2001: Interferometry Techniques
- 2002: Interferometry Theory and Techniques

Michelson Summer Workshops

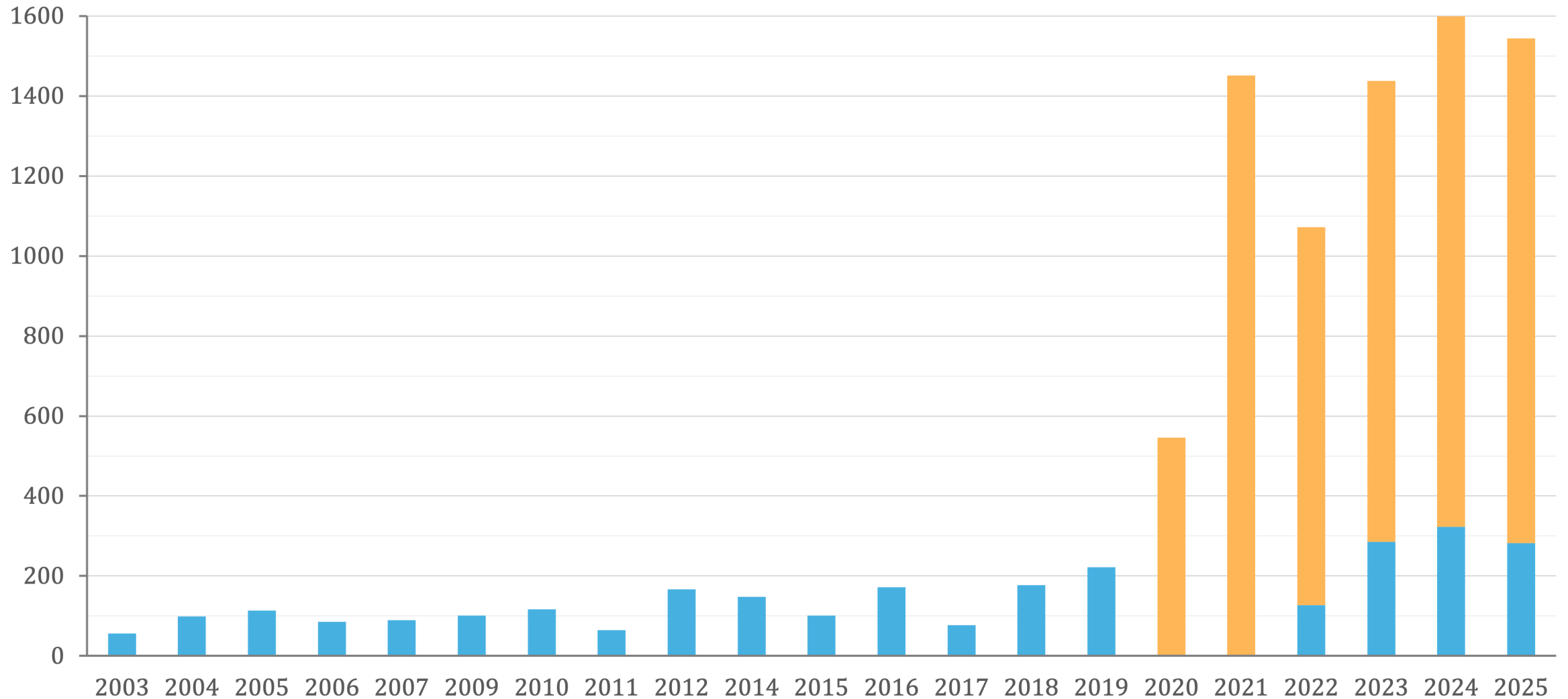
- 2003: Interferometry Overview
- 2004: Frontiers of High Contrast Imaging in Astrophysics
- 2005: Discovering New Worlds Through Astrometry
- 2006: Frontiers of Interferometry: Stars, Disks, and Terrestrial Planets
- 2007: Planetary Transits: Detection to Characterization

Sagan Summer Workshops

- 2009: Exoplanetary Atmospheres
- 2010: Stars as Homes for Habitable Planetary Systems
- 2011: Exploring Exoplanets with Microlensing
- 2012: Working with Exoplanet Light Curves
- 2014: Imaging Planets & Disks
- 2015: Exoplanetary System Demographics: Theory and Observations
- 2016: Is There a Planet in My Data? Statistical Approaches to Finding and Characterizing Planet in Astronomical Data
- 2017: Microlensing in the Era of WFIRST
- 2018: Did I Really Just Find an Exoplanet?
- 2019: Astrobiology for Astronomers
- 2020: Extreme Precision Radial Velocity
- 2021: Circumstellar Disks and Young Planets
- 2022: Exoplanet Science in the Gaia Era
- 2023: Characterizing Exoplanet Atmospheres: The Next 20 Years
- 2024: Advances in Direct Imaging: From Young Jupiters to Habitable Earths
- 2025: Silver Jubilee: Exoplanet Demographics

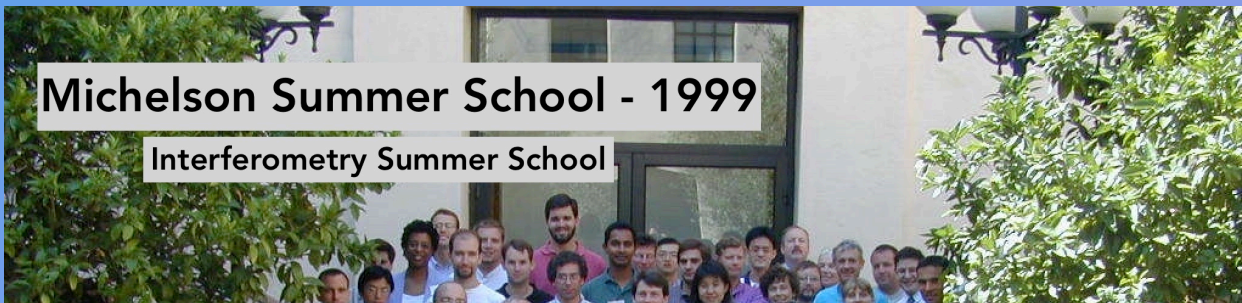
Sagan Summer Workshop Attendance 2003-2025

■ In-person registrants ■ Remote registrants



Michelson Summer School - 1999

Interferometry Summer School



Sagan Summer Workshop - 2009

Exoplanetary Atmospheres



Sagan Summer Workshop - 2024

Advances in Direct Imaging: From Young Jupiters to Habitable Earths



Thank You to the Workshop Lead Organizers



Gerard van Belle (Director of Science, Lowell Observatory)

LOC lead for the 2003 and 2004 Michelson Summer Schools

Dawn Gelino (Exoplanet Exploration Program Manager, JPL)

LOC lead for all Michelson Summer Schools and Sagan Summer Workshops from 2005 to 2024

From one of our attendees:

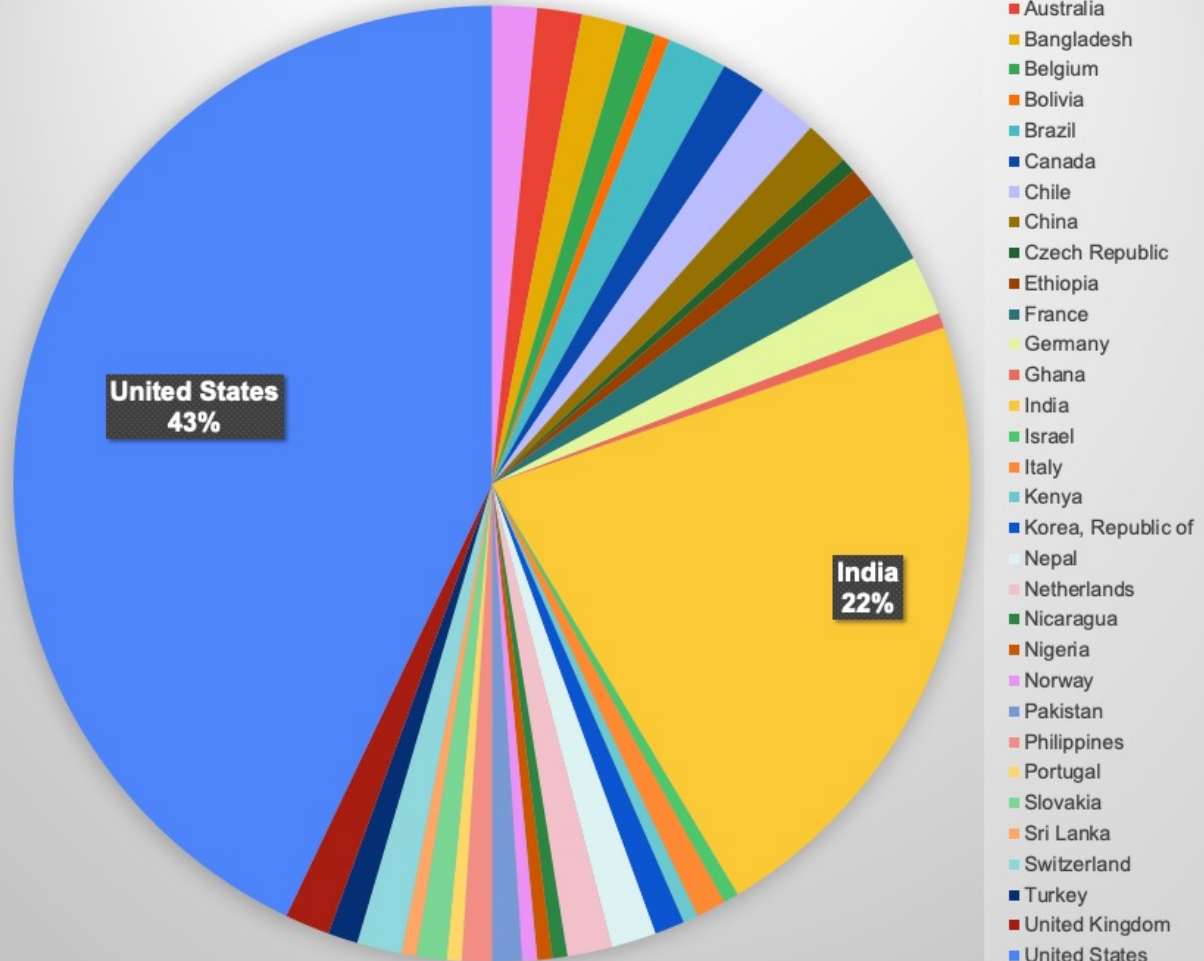
"Dawn Gelino ran the workshops I attended with such expertise, they were always very useful and smoothly run."



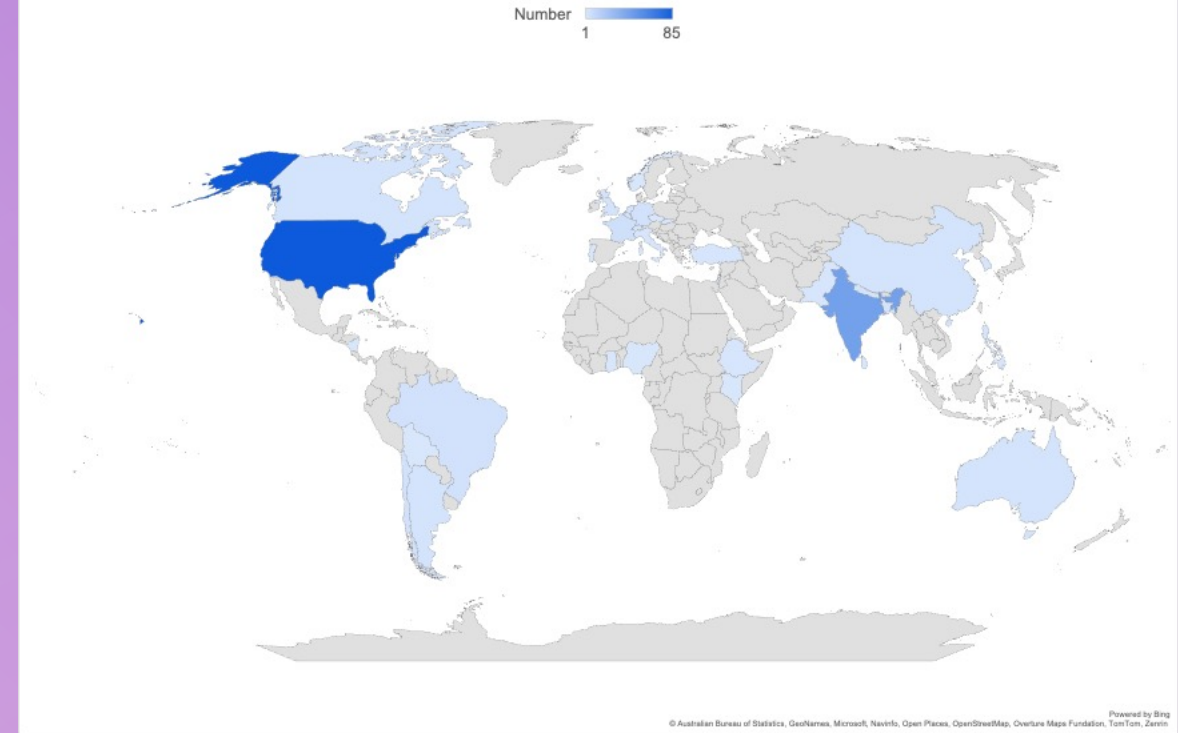
Sagan Summer Workshop Participation and Career Impact Survey:

203 responses over 5 1/2 months

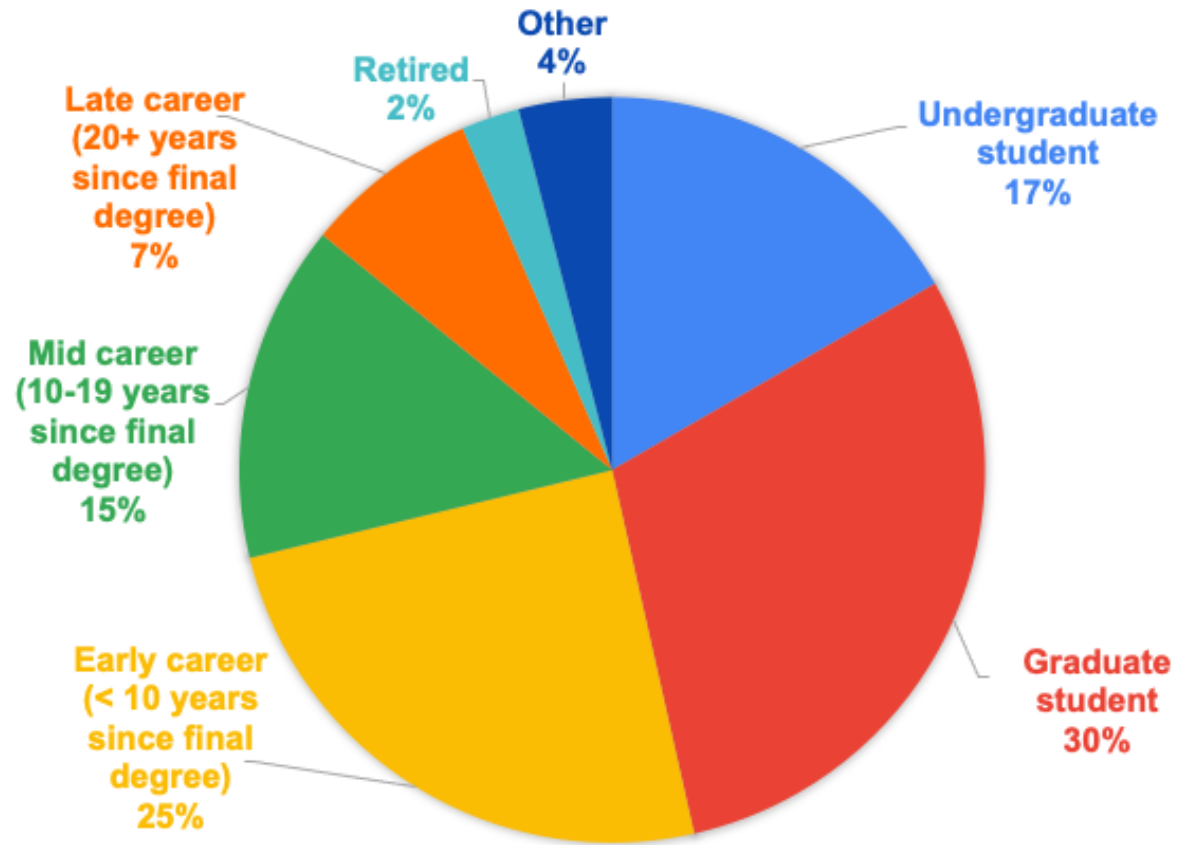
Participants' Country



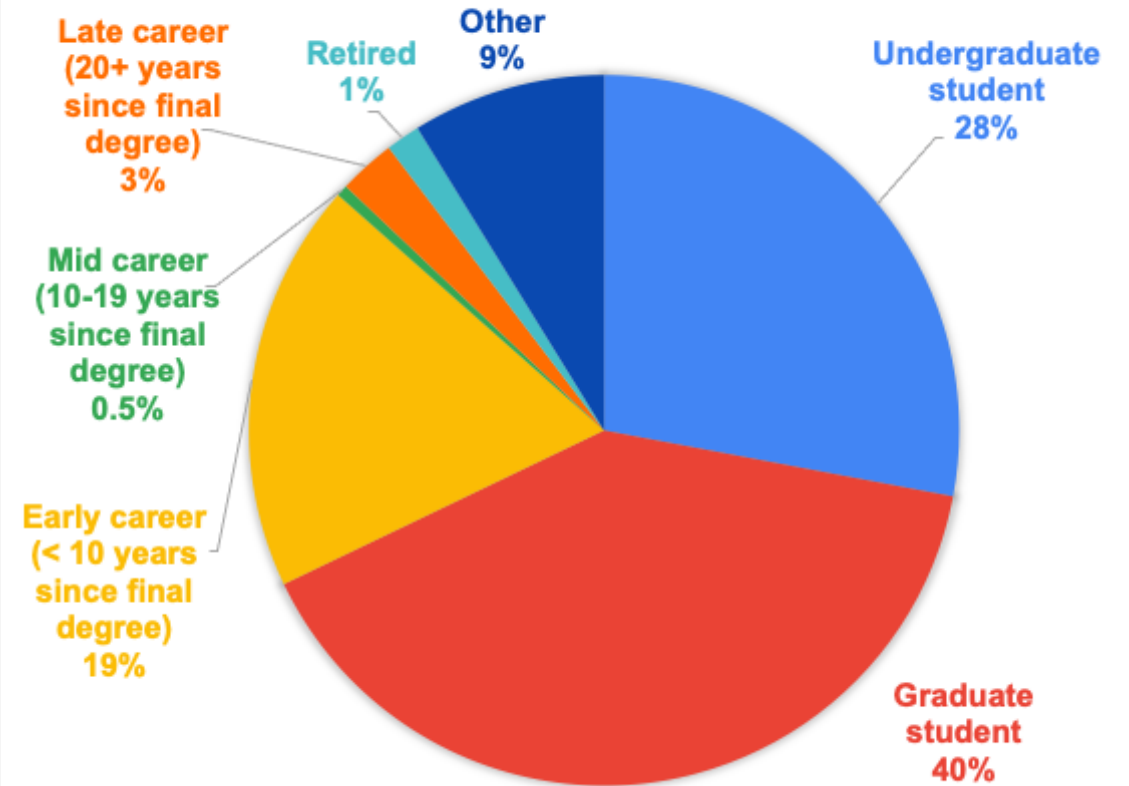
Participants' Country



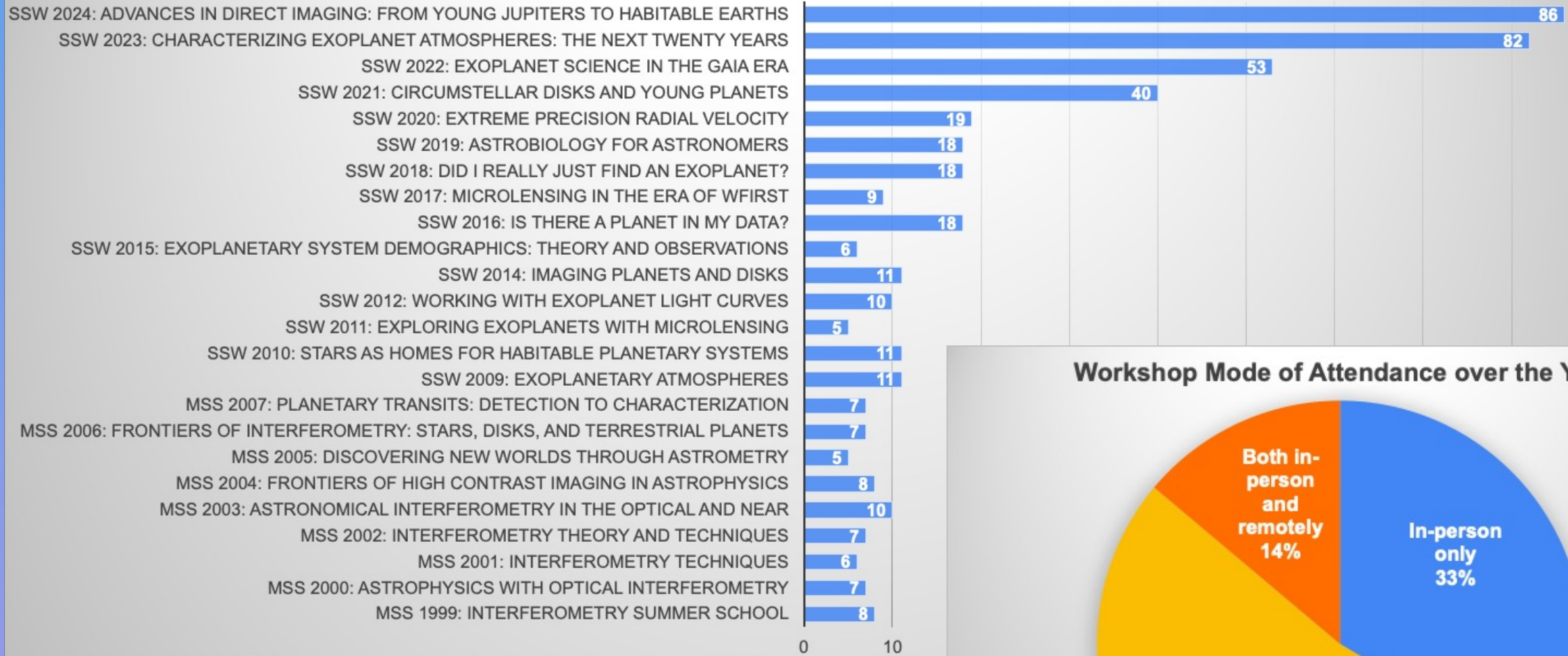
CURRENT CAREER LEVEL



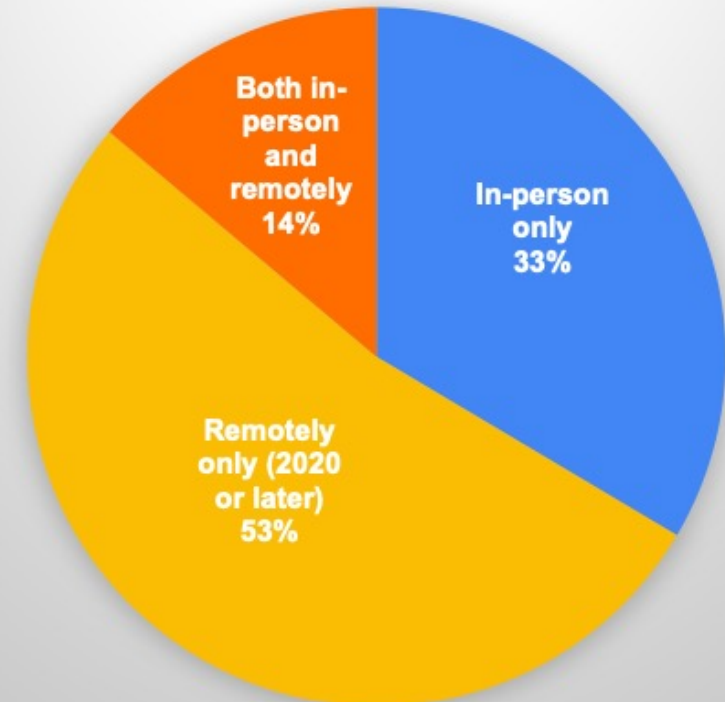
CAREER LEVEL AT THE TIME OF THE FIRST MICHELSON OR SAGAN WORKSHOP



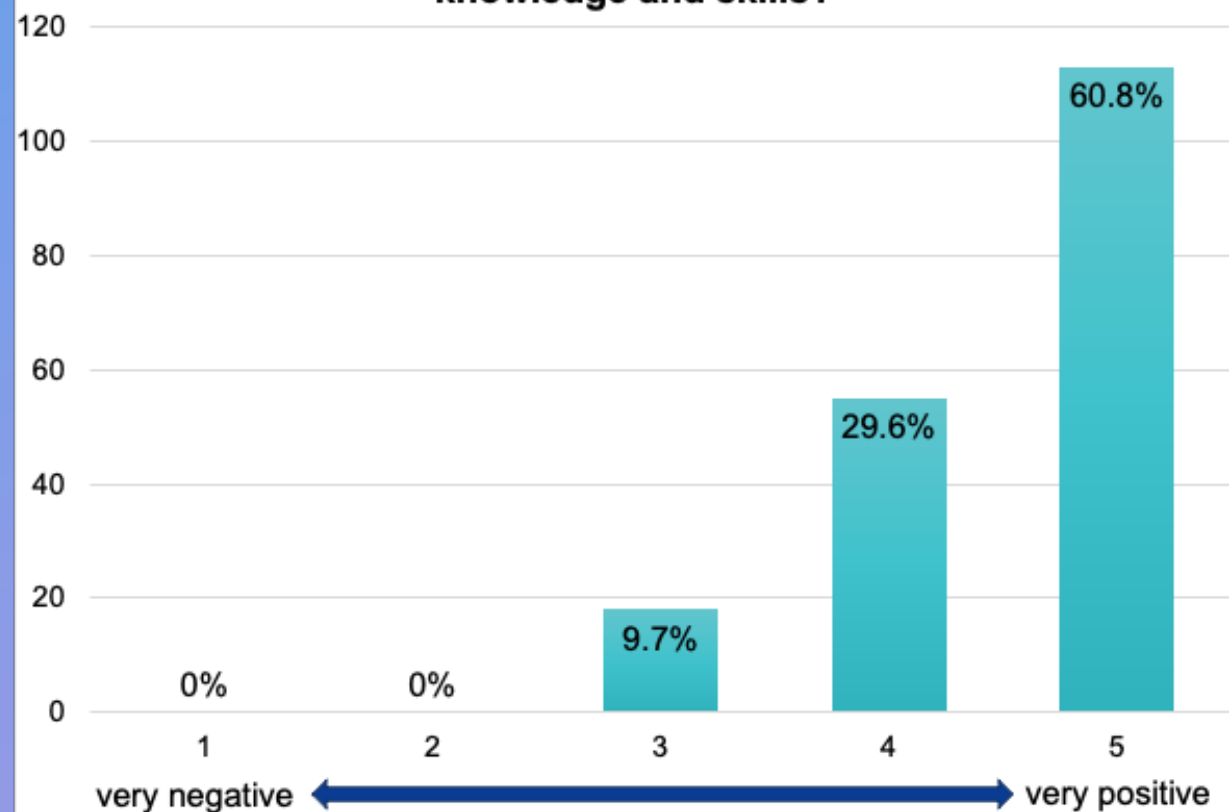
Workshops Attended by Survey Respondents



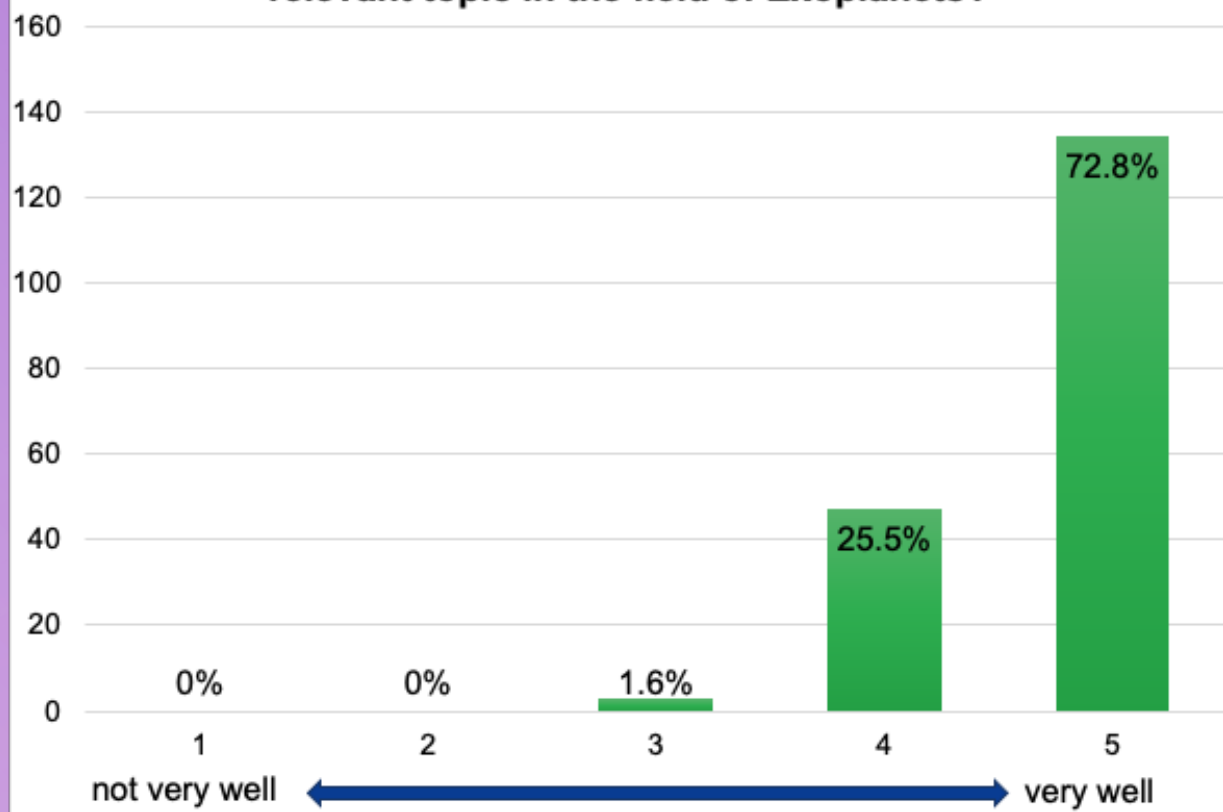
Workshop Mode of Attendance over the Years



Overall impact of the workshop on your scientific knowledge and skills?

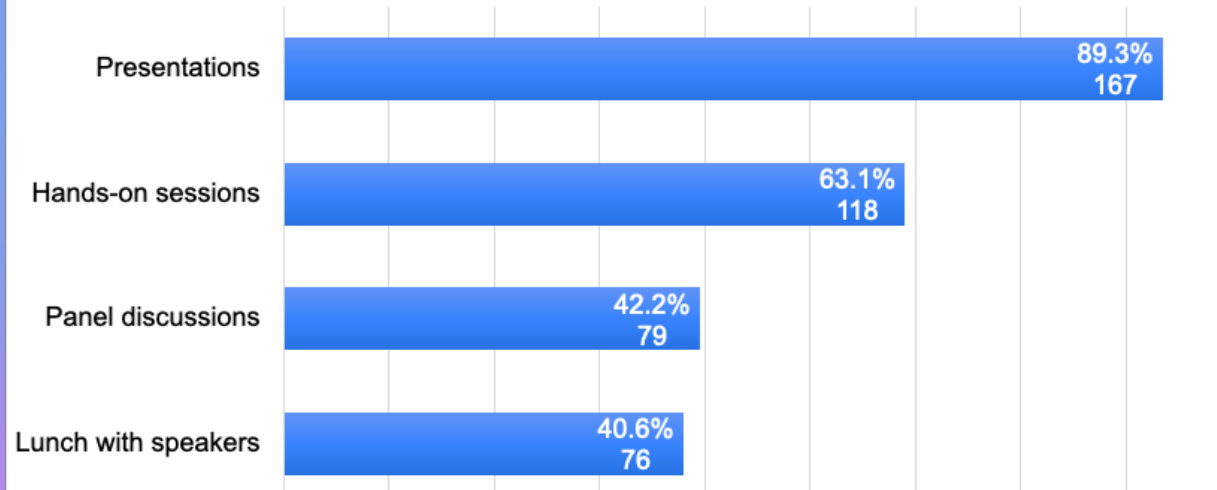


How well does the workshop address a timely and relevant topic in the field of Exoplanets?

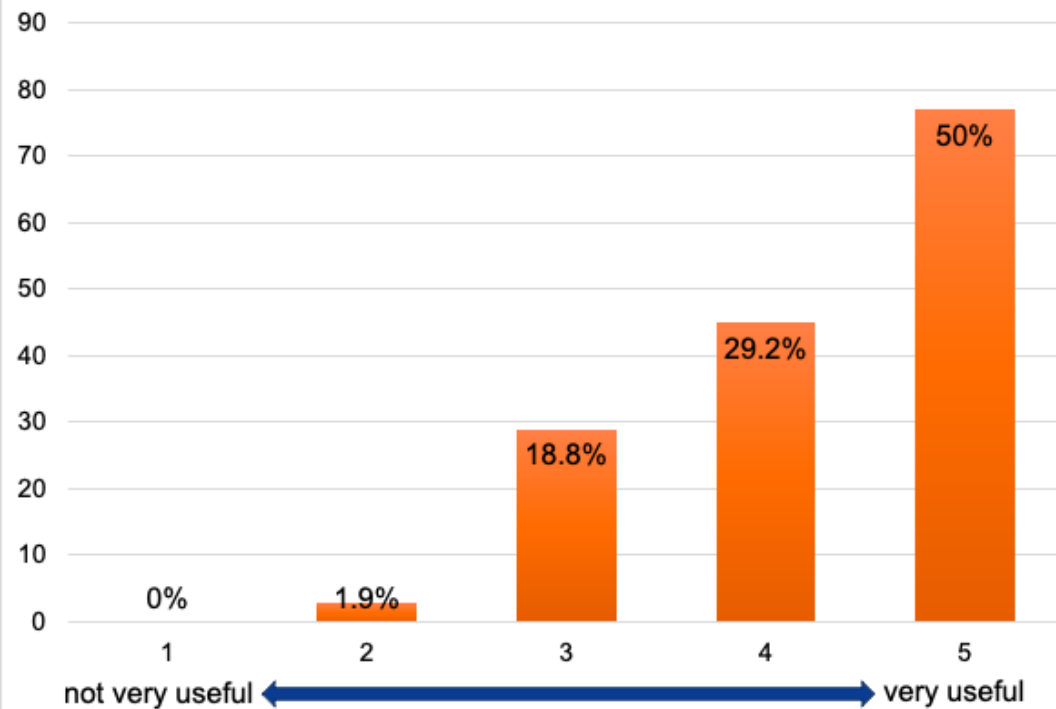


Most Beneficial Aspects of the Workshop

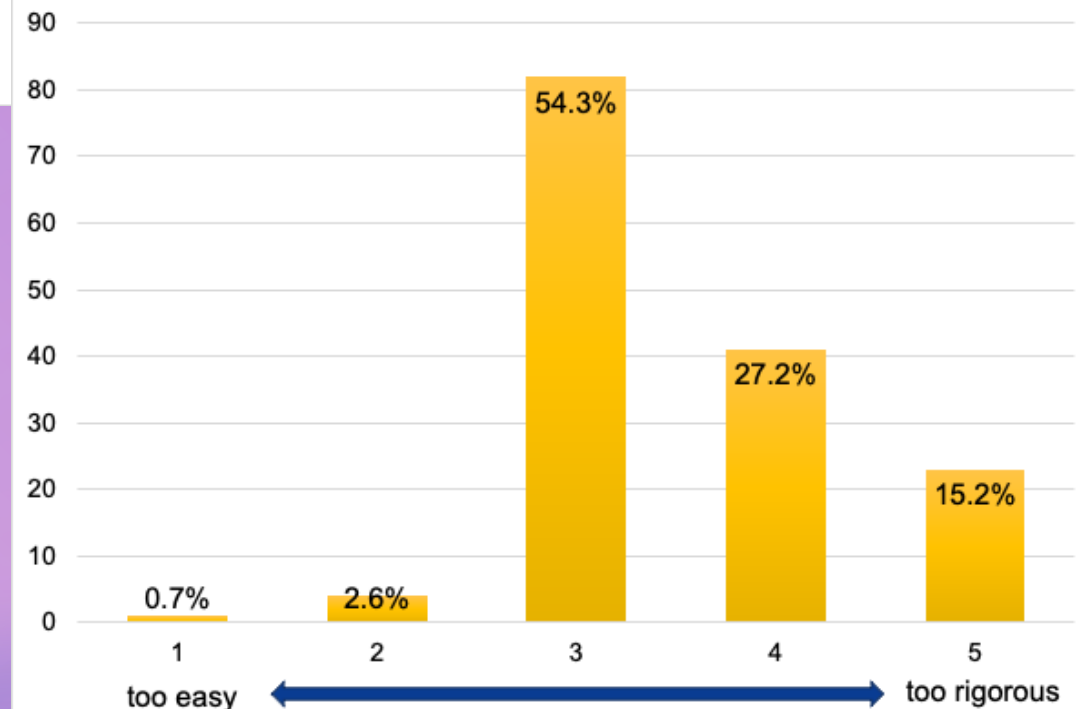
(select all that apply)



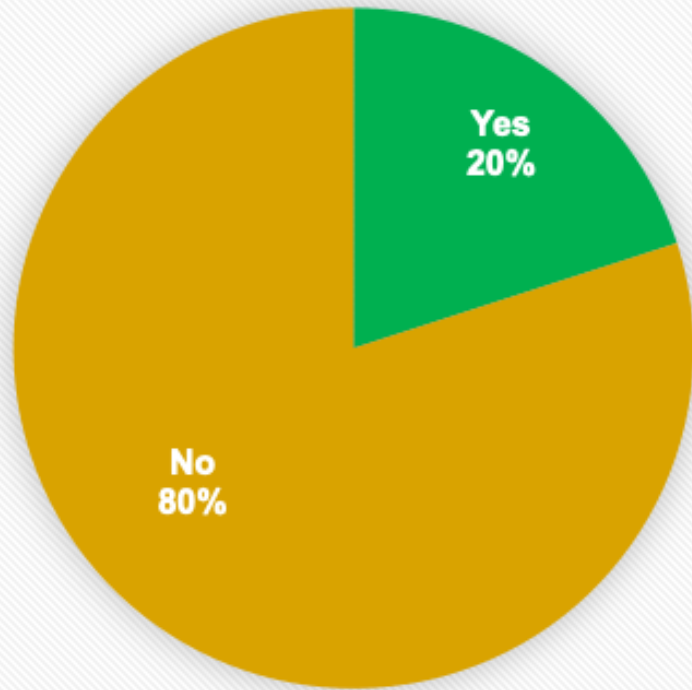
Usefulness of Hands-on Sessions



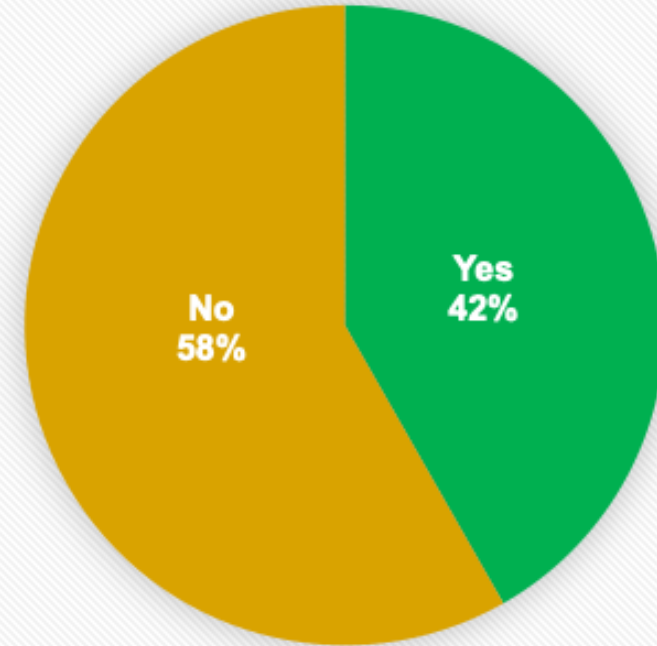
Level of Hands-on Sessions



Did you apply for travel support through NExSci?



If you received travel support, would your attendance have been impossible without support?



From the Survey: Knowledge and Skills

"Skills to reduce and interpret JWST data allowed me to obtain time in future cycles and develop independent research programs."

"I was able to broaden my previous experiences with light curves of close binary stars and move to the exoplanet light curves. I was able to work with Kepler and subsequent TESS data."

"I learned a ton about precision radial velocity, and RVs in general. I left the meeting feeling like I understood the technique at a deeper level."

"I found it interesting to learn about the different techniques other researchers use. Seeing their approaches gave me new ideas for my own work and encouraged me to try methods I hadn't considered before."

"I've used the retrieval skills I learned in the workshop in my own research, and used knowledge about the current state and future of the field from presentations and panel discussions to inform future directions in my own work."

From the Survey: Hands-on Sessions

"The hands-on sessions were really useful and important because participants and instructors shared a lot of valuable information on tools and methods they used. These tips/tricks don't really get shared any other way than when a group of people are trying to work on something all together and they can see what everyone else is doing in real time."

"In particular, the tools I learned to use in the hands-on sessions were key to improving the quality of my research and enhancing my understanding of the subject."

"Some tools taught at the hands-on sessions I currently use in my research. Having an introduction to them at the workshop was quite valuable."

"I still refer to some past presentations for young students to get introduced to the field. The hands on are very useful to get practical skills in programming."

"Referring to the hands-on sessions, especially the videos from previous years' sessions on YouTube, helped me understand and learn to use particular packages when I needed them for my research. These videos from all previous workshops are a very very valuable resource."

From the Survey: Teaching and Learning

"The Sagan Workshops have been very beneficial for my students; about 5-6 have attended (both grad and undergrad students) over the years. They said it was a great experience. The low cost was a key factor in their participation."

"My SSW experience helped me organize and run my JWST exoplanet GTO program and it helped me prepare lectures and hands-on activities for the Vatican Observatory Summer School when I taught there in June (2025)."

"It kindled my fascination in the field as well as how research is conducted. It allowed me to develop skills that are not covered in a classroom setting."

"[..] As a mid-stage graduate student this was the first conference where I felt less like I was absorbing the wisdom of my elders and more like I was among a cohort of peers who were going to tackle the new frontiers of exoplanets."

"The knowledge gained from the workshop allowed me to pursue my own research, when I was a citizen scientist, that led to my PhD that I'm pursuing now."

From the Survey: Influence on Careers

"I attended as a participant in 2009 and as a lecturer in 2023, which shows how much my career advanced and the workshop was there to help in my beginnings."

"My initial exposure to all of the relevant high-contrast imaging techniques that I use in my work today came at a Sagan workshop. I cannot overstate its value to my overall career development."

"The workshop also introduced me to emerging missions and datasets that I have since incorporated into my work, influencing both my research questions and collaborations."

"Great experience, got insight from speakers also about postdoc applications which allowed me to become a Sagan Fellow a year after."

"This workshop gave me the confidence to apply to graduate school in planetary science and completely changed the trajectory of my career."

"Connecting with other grad students in these workshops (when I was a student) and seeing that they are facing similar problems as I was at the time (in my research and career-wise) made me feel much more confident and motivated about my work."

From the Survey: Personal Connections

"[...] The combination of talks, discussions (e.g., through the lunches), the opportunity to share early science results (e.g., through the POP/poster sessions), and to meet peers at a similar career stage as me was really fantastic and helped me immensely in learning more about the broad horizon of exoplanet research."

"Several mentees from the 2003 summer school have since then become colleagues / collaborators on interferometry projects. [...]"

"Many friendships made with other graduate students - this might have been the best part! It made the exoplanet world feel like a real community."

"I joined discussions, which allowed me to ask questions about their research and receive valuable career advice. These informal conversations helped me build connections and gain insights that I continue to benefit from, as now I work with some of the people I met on the workshops."

"I also appreciated the openness of senior researchers—one gave me advice on navigating early-career challenges that I still follow today. Beyond the science, I made lasting friendships with peers from other institutions, and we continue to support each other in our careers through collaboration and idea exchange."

From the Survey: Overall Assessment

"Thank you all for the time and effort that has gone into planning this terrific workshops. They are such a great way as an early-career scientist to participate in something that feels catered and designed for you."

"What surprised me the most was the openness and friendliness of all the volunteers [..]. Please keep up the outstanding work that you have been doing all these years."

"Simply thank you. These workshops have been very useful for both senior and junior scientists (incl. students)."

"Excellent job! Thank you for continuing to hold the hybrid event. It brings a lot of people together."

"I think the first time I started to feel like a "real" astronomer was at the first Sagan Summer Workshop I attended in 2019 as a junior graduate student. It was really special to be in community with astronomers at all career stages -- who were interested in the same stuff I was interested in! -- and exchange stories and learnings about our field."

"Sagan Summer Workshops are the absolute best. So, so important for the development of young exoplanet astronomers. "

A Final Thank You

...to all the LOC members over the years:

Frank Aragon

Gerard van Belle

Carolyn Brinkworth

Tracy Chen

Catherine Clark

Megan Crane

Virginie Faramaz

Elise Furlan

Dawn Gelino

Kathy Golden

Tom Greene

Shellie Hanna

Alice Hang

Yvonne Ibarra

Sean Kindt

Wanetta Lockhart

Irene Loera

Helene Mannings

Helga Mycroft

M.E. McElveney

Renee Newman

Ellen O'Leary

Roberta Paladini

Neda Safizadeh

Nancy Solis

Dorothy Stevens

Melanie Swain

Janice Voss

...to all the SOC members, speakers, and participants:

YOU ALL HELPED MAKE OUR SAGAN SUMMER WORKSHOPS A SUCCESS STORY!