

Dr. Dan Werthimer

March 27, 2021



Dan Werthimer is co-founder and chief scientist of the [SETI@home](#) project and directs other UC Berkeley [SETI](#) searches at radio, infrared and visible wavelengths, including the [Search for Extra-Terrestrial Radio Emissions from Nearby Developed Intelligent Populations](#) (SERENDIP). He is also the principal investigator for the worldwide Collaboration for Astronomy Signal Processing and Electronics Research (CASPER).

Werthimer was associate professor in the engineering and physics departments of San Francisco State University and a visiting professor at Beijing Normal University, the University of St. Charles in Marseille, Eotvos University in Budapest.

Werthimer has taught courses at universities in Peru, Egypt, Ghana, Ethiopia, Zimbabwe, Uganda and Kenya. He has published numerous papers in the fields of SETI, radio astronomy, instrumentation and science education; he is co-author of "SETI 2020" and editor of "Astronomical and Biochemical Origins and the Search for Life in the Universe".

Dr. Jani Radebaugh

April 24, 2021

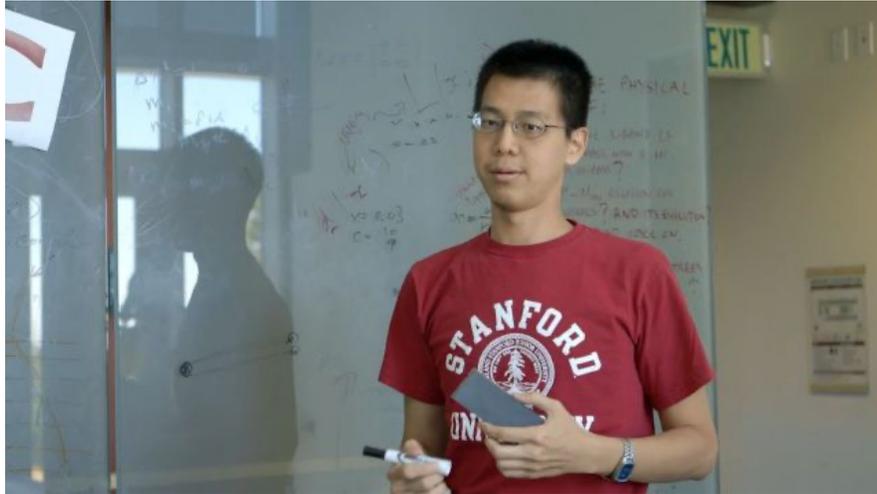


Jani Radebaugh is an American planetary scientist and professor of geology at Brigham Young University who specializes in field studies of planets. Radebaugh's research focuses on Saturn's moon Titan, Jupiter's moon Io, our own Moon, Mars and Pluto.

As an Associate Team Member of the Cassini Radar Science Team, she studied the surface processes on Titan that form such features as dunes, mountains, lakes, rivers, and cryovolcanoes.

Dr. Yao-Yuan Mao

May 22, 2021



Yao-Yuan is a NASA Einstein Fellow of the Hubble Fellowship Program, currently affiliated with the Department of Physics and Astronomy at Rutgers, The State University of New Jersey – New Brunswick.

His research answers key questions about the nature of dark matter, galaxy formation physics, and the uniqueness of our own Milky Way by studying the connection between visible galaxies and their nests, the invisible dark matter halos.

He has been co-piloting the SAGA Survey, an ongoing spectroscopic galaxy survey aiming to characterize Satellites Around Galactic Analogs. He also serves as a Dark Matter Working Group co-convenor, a Data Access Team co-lead, and a Collaboration Council member in the Rubin Observatory LSST Dark Energy Science Collaboration (DESC). He was credited the Builder Status by the DESC in 2019.

My name

My name is 茅耀元 in Traditional Chinese; the first character is my last name *Mao*.

At work I usually go by just "Yao", and use [they](#) or [he](#) as my pronouns.

How to pronounce my name?

- Each character of my name is monosyllabic.
- *Yao* starts as in *yard* and ends as in *cow*, with the falling (4th) tone.
- *Yuan* starts with the *ü* sound, like *über* in German or *lune* in French (similar to *few* in English but with rounded lips), and it ends as in *Ben*, with the rising (2nd) tone.
- *Mao* has the same vowels as in *Yao*, but with the rising (2nd) tone.
- Listen to the pronunciation of my name with [Google Translate](#).

How to style my name in writing?

- In writing, "Yao-Yuan" as a whole is my first name, with the hyphen indicating two syllables. Both Y's should always be capitalized.
- When hyphen is not allowed (*but why?*), my first name can be written as "Yao Yuan". However, "Yuan" should not be considered as a middle name, nor should it be combined with "Yao" into a single word.
- When abbreviated, my name should appear as "Y.-Y. Mao".
- In casual situations where only first names are being used, it is appropriate to use just "Yao" like in verbal communications.
- These styling rules are for myself. They are not general rules and do not apply to everyone who use romanized Chinese names.

Dr. Martin Braddock

June 26, 2021

Martin Braddock, PhD, FRAS, FRSB, Sherwood Observatory, Mansfield and Sutton Astronomical Society, Nottinghamshire, UK

Professionally, Martin is a Global Project Leader within the Late Stage Development Respiratory and Immunology Team at a major Bio Pharmaceutical Company based in Cambridge, United Kingdom. He has worked in all stages of drug discovery and development from basic non-clinical and clinical science through to both Early (phase I and II) and Late stage (phase III and life cycle management) clinical development as both a project manager and leader.

Martin has published widely with over 200 publications and is a named inventor on 8 patents. He acts as a reviewer for project proposals for multiple European Research Agencies and has editorial roles on numerous scientific journals.

In 2012, he was elected as a Fellow of the Royal Society of Biology for outstanding contribution to science.

Outside of working in drug discovery and development, he is passionate about all aspects of astronomy and was elected a Fellow of the Royal Society of Astronomy in 2015 for his services to outreach activities. He has given over 100 presentations throughout Europe, Asia and North and South America, contributed to several white papers for the UK Royal Astronomical Society and is an active Science, Technology, Engineering and Medicine (STEM ambassador). Through STEM he works through local schools and helps to inspire the next generation of young scientists at both school level and through UK based astronomy societies, clubs and groups.



Presentation summary

Human beings are poorly adapted to live and work in space. To date, space missions rarely reach durations of longer than 6-9 months and during that time astronauts experience an environment that affects their physical and psychological well-being.

In this talk I will review the safety record of space travel and the some of the major effects of microgravity on astronaut health and the mitigation measures that are in place. The unique environment in space provides many challenges and opportunities for scientific exploration in drug discovery and development. I will introduce the drug discovery and development process that leads to the manufacture of new medicines and discuss aspects of the space environment that has driven advances in the identification of potential drug targets and their validation. We will review some recent progress in crystallography and efficacy validation of candidate new drugs in vivo.

Lastly, we will take a glimpse into a possible future and consider the possibilities for deep space travel and the challenges that need to be overcome to permit long term missions, ask and attempt to answer some of the ethical questions raised with reference to human enhancement, regenerative medicine and synthetic biology. Please come with an open mind!

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Dr. Allison Strom

August 28, 2021

Princeton University, Dept of Astrophysical Science



My research focuses on the chemical enrichment of distant galaxies, primarily by analyzing their rest-UV and rest-optical spectra with ground-based telescopes like Keck, Magellan, and Subaru. I am also interested in the overlap between extragalactic observational science and theoretical predictions, not only of galaxy formation and evolution, but also concerning stellar evolution. Galaxies in the early Universe are powerful laboratories for studying stellar populations with unique properties, particularly with respect to their chemical composition and energetic feedback on their surroundings.

In addition to research, I also engage in public outreach and seek to promote diversity, equity, and inclusion (DEI) in the scientific community. I have given public talks at venues across the LA area, partnered with the local YWCA, and even talked about the history of astronomy on public-access television. As co-chair of the DEI series at Carnegie Observatories, I have led and organized workshops around topics like inclusive mentoring and allyship. As a local alumna of Caltech, I am also an active member of the [Women Mentoring Women](#) program and a mentor through the LA chapter of [Step Up Women's Network](#).

Dr. Lucianne Walkowicz

Sept. 25, 2021



Lucianne Walkowicz is based at the Adler Planetarium noted for their research contributions in stellar magnetic activity and its impact on planetary suitability for extraterrestrial life.

□ Since 2008, Walkowicz has been the chair of the Large Synoptic Survey Telescope (LSST) Transients and Variable Stars collaboration and is the founding director of the LSST Data Science Fellowship program. They are internationally recognized for their advocacy for conservation of dark night skies, and were named a 2011 National Academy of Science Kavli Fellow and a 2012 TED Senior Fellow.

In 2017, Walkowicz was named the fifth Baruch S. Blumberg NASA/Library of Congress Chair in Astrobiology in the John W. Kluge Center at the Library of Congress. They began their tenure October 1, 2017, working on a project titled “Fear of a Green Planet: Inclusive Systems of Thought for Human Exploration of Mars.” Their project aims to create an inclusive framework for human exploration of Mars, encompassing both cutting-edge research on Mars as a place of essential astrobiological significance, while weaving in lessons from the diverse histories of exploration on Earth.

Walkowicz holds a BS in physics and astronomy from Johns Hopkins University, and an MS and PhD in astronomy from the University of Washington. As an undergraduate at Johns Hopkins, they got their taste for astronomy while testing detectors for the Hubble Space Telescope’s new camera.