

Committee on Astronomy and Astrophysics (CAA)

Committee

John O'Meara

Co-Chair

John O'Meara, co-chair, is the chief scientist and deputy director of the W.M. Keck Observatory. O'Meara's research focuses on the circumgalactic and intergalactic medium and experimental tests of Big Bang Nucleosynthesis, with over 125 refereed publications. O'Meara has over 25 years' experience using ground and space based facilities and is a member of multiple large international collaborations. O'Meara has significant strategic mission development experience, including serving as the Cosmic Origins science co-lead for the LUVOIR mission concept and as co-chair of the Science, Technology, and Architecture Review Team for the Habitable Worlds Observatory. O'Meara has chaired several committees, including the Astronomy and Astrophysics Advisory Committee and the NASA Astrophysics Division Senior Review, has received multiple NASA group achievement awards along with the Exceptional Public Service Medal, and is an elected member of the Vermont Academy of Science and Technology. O'Meara received a Ph.D. from the University of California San Diego and has taught at Penn State University and Saint Michael's college, with the rank of full professor at the latter institution.

Rachel A. Osten

Co-Chair

Rachel A. Osten, co-chair, is the interim deputy director and a multi-wavelength stellar astronomer at the Space Telescope Science Institute. Her research interests include stellar coronae, stellar flares, multi-wavelength observations of flares, stellar radio emission, stellar X-ray emission, and flare modelling. Prior to joining the Space Telescope Science Institute, she was a Hubble Fellow at the University of Maryland and NASA Goddard Space Flight Center, and a Jansky Fellow at the National Radio Astronomy Observatory. Osten is a member of the American Astronomical Society, and the International Astronomical Union. She received her Ph.D. from the University of Colorado, Boulder. She previously served as Executive Officer and Steering Committee member for the National Academies' Decadal Survey of Astronomy and Astrophysics (Astro2020).

David A. Boboltz

Member

David A. Boboltz is the associate director for the Daniel K. Inouye Solar Telescope (DKIST) at the National Solar Observatory (NSO). Previously, Boboltz was a program director in NSF's Division of Astronomical Sciences responsible for research facilities including: DKIST construction, NSO, the formation of the National Optical-Infrared Astronomy Research Laboratory (NOIRLab), and most recently, the U.S. Extremely Large Telescope program. For work on astronomical facilities, Boboltz was awarded NSF's prestigious Meritorious Service medal. Prior to NSF, Boboltz was a radio astronomer in the Astrometry Department of the U.S. Naval Observatory and a post-doctoral fellow at MIT Haystack Observatory. Boboltz's interests include solar physics, astrometry, radio stars, circumstellar masers, and circumstellar atmospheres of evolved stars. Boboltz was a pre-doctoral fellow at the National Radio Astronomy Observatory and received a Ph.D. in Physics from Virginia Tech.

Ian J. Crossfield

Member

Ian Crossfield is an associate professor of physics at the University of Kansas, and held previous appointments at MIT, UC Santa Cruz, University of Arizona, the Max Planck Institute for Astronomy, and NASA/JPL. Crossfield has worked in the field of exoplanets for nearly 20 years, on topics ranging from next-generation space- and ground-based instrumentation, to ground- and space-based optical/infrared observations, to modeling and theory. Crossfield served on the Astro2020 science panel for Exoplanets and was a Kavli Frontiers of Science Fellow. Crossfield received a Ph.D. in astronomy from UCLA.

Wen-fai Fong

Member

WEN-FAI FONG is an AT&T Associate Professor of Physics and Astronomy at Northwestern University at the Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA). Prior to joining Northwestern as faculty, Fong was a NASA Einstein Fellow at Steward Observatory (Arizona). Fong's interests include gamma-ray bursts, multi-messenger gravitational wave sources, and fast radio bursts to unveil their origins. Fong previously served on the NASA Gravitational Wave-Electromagnetic Wave Task Force and is a member of the NASA Fermi Users Committee. Fong has been recognized with Packard and Sloan Research Fellowships, and the 2024 AAS Berkeley Prize. Fong's role as a teacher-scholar and commitment to cultivating an inclusive environment has been recognized with an NSF CAREER Award and a Cottrell Scholars Award. Fong received a Ph.D. in astronomy and astrophysics from Harvard University.

Larry D. Gladney

Member

LARRY D. GLADNEY is dean of science and the Phyllis A. Wallace Dean for Diversity and Faculty Development for the Faculty of Arts and Sciences at Yale University. Gladney is also professor of physics. Before coming to Yale, Gladney was the Edmund J. and Louise W. Kahn Professor for Faculty Excellence in the Department of Physics and Astronomy and associate dean for natural sciences in the School of Arts and Sciences at the University of Pennsylvania. At Penn Gladney held a secondary appointment as professor of education in the Higher Education division of the Penn Graduate School of Education and was formerly chair of Penn's Department of Physics and Astronomy, chair of the Penn Faculty Senate and director and principal investigator of the Penn Science Teacher Institute. Gladney's research focuses at the intersection of experimental particle physics and cosmology where we attempt to understand the origins of and fundamental connections between matter, energy, space, and time. Gladney's most recent work is in the mission planning and simulation of the Legacy Survey of Space and Time (LSST) mission for the Vera Rubin Observatory in Chile. Gladney is co-author or author of more than 600 peer-reviewed publications. Gladney received a Ph.D in physics from Stanford University.

Gabriela González

Member

Gabriela González, NAS, is a professor in the department of physics and astronomy at the Louisiana State University (LSU). González is a former spokesperson of the Laser Interferometer Gravitational Wave Observatory (LIGO) Scientific Collaboration that first detected gravitational waves. Prior to joining LSU, González was an assistant professor at The Pennsylvania State University. González has received numerous honors and awards including the NAS Award for Scientific Discovery, the Bruno Rossi Prize from the High Energy Astrophysics Division of the American Astronomical Society, and the American Physical Society Edward A. Bouchet Award. González received a Ph.D. in physics from Syracuse University.

Robert C. Kennicutt, Jr.

Member

Robert Kennicutt, NAS, holds joint positions as University Distinguished Professor at Texas A&M University (TAMU) and Laureate Professor at the University of Arizona. Kennicutt also serves as the executive director of the Mitchell Institute for Fundamental Physics and Astronomy at TAMU. Kennicutt's research focuses on observational extragalactic astronomy and cosmology, including the structure and evolution of galaxies, star formation in galaxies, and the cosmic distance scale. Awards for Kennicutt's work include the Gruber Cosmology Prize, the AAS/AIP Dannie Heineman Prize in Astrophysics, and the Gold Medal of the Royal Astronomical Society. Kennicutt is a member of the American Academy of Arts and Sciences, and a Fellow of the Royal Society. Kennicutt received a Ph.D. from the University of Washington. Kennicutt co-chaired the National Academies Astro2020 Decadal Survey of Astronomy and Astrophysics.

Naoko Kurahashi Neilson

Member

Naoko Kurahashi Neilson is a professor of physics at Drexel University. Kurahashi Neilson's research interests include neutrino astronomy, high energy astrophysics, and particle physics. Prior to joining Drexel University, Kurahashi Neilson was a postdoctoral researcher at the University of Wisconsin, Madison. Kurahashi Neilson is the recipient of an NSF Faculty Early Career Development Program Award and a fellow of the American Physical Society. Kurahashi Neilson received a Ph.D. from Stanford University.

Elisa V. Quintana

Member

Elisa V. Quintana is an astrophysicist at NASA Goddard Space Flight Center. Quintana serves as the Transiting Exoplanet Survey Satellite (TESS) deputy project scientist and the Nancy Grace Roman Telescope deputy project scientist for communications. Quintana is also a member of the TESS Guest Investigator Office and a member of the Goddard Diversity and Inclusion Advisory Committee. Quintana's research is focused on the detection, characterization, and formation of exoplanets using ground and space-based observations, data analysis techniques, and modeling. Quintana leads the Goddard Exoplanet Group, which works on research related to exoplanets, low mass star activity, and developing small space-based mission concepts. Previously, Quintana worked at NASA Ames Research Center and the SETI Institute on the Kepler and K2 space missions. Quintana led a team of astronomers to confirm Kepler-186f, the first Earth-sized planet found to orbit within the habitable zone of another star. Quintana is the recipient of the Great Minds in STEM 2015 Scientist of the Year, the Lupe Ontiveros Dream Award, and the NASA Software of the Year Award. Quintana received a Ph.D. in physics from the University of Michigan, Ann Arbor.

Brant Robertson

Member

Brant Robertson is a professor of astronomy and astrophysics at the University of California, Santa Cruz. Robertson's research interests include theoretical topics related to galaxy formation, dark matter, hydrodynamics, machine learning, and numerical simulation methodologies. Robertson was the John and Maureen Hendricks Visiting Professor at the Institute for Advanced Study, and an assistant professor at the University of Arizona. Robertson held a Hubble Fellowship in the astronomy department at the California Institute of Technology, and a Spitzer and Institute Fellowship at the Kavli Institute for Cosmological Physics and Enrico Fermi Institute at the University of Chicago. Robertson received a Ph.D. in astronomy from Harvard University.

Grant H. Stokes

Member

Grant H. Stokes, NAE, is a Laboratory Fellow in the Space Systems and Technology Division at MIT Lincoln Laboratory. Dr. Stokes was previously the head of the Division from 2007 to 2024, where Dr. Stokes was responsible for programs in space control and electro-optical systems and technology. Dr. Stokes supervised the demonstration and transition of the first space-based space surveillance system to U.S. Air Force operations and has initiated programs to develop next-generation technology for establishing space situational awareness. These programs include the Space Surveillance Telescope, which provided a 3.5-meter aperture ground-based space surveillance search system, and a program to upgrade the Haystack Radar to W-band operations, yielding high-resolution radar images of satellites. Dr. Stokes served as a member of the Air Force Scientific Advisory Board (SAB). In that capacity, Dr. Stokes was the chairman of the 2006 SAB Summer Study on Space Survivability. In addition, Dr. Stokes chaired the 2006 Science and Technology Review of the Space Vehicles Directorate of the Air Force Research Laboratory and the 2007 review of the Air Force Office of Scientific Research. In 2008, Dr. Stokes was honored with the Air Force Meritorious Civilian Service Award for Dr. Stokes' four years of service to the Air Force SAB. In 2010, Dr. Stokes was appointed an Institute of Electrical and Electronics Engineers fellow for Dr. Stokes' leadership in the development and implementation of advanced space search systems. Dr. Stokes is a 2016 inductee to the National Academy of Engineering and was named a fellow of the American Institute of Aeronautics and Astronautics in 2022. Dr. Stokes directs the development and operations of the Lincoln Near-Earth Asteroid Research (LINEAR) program, which, as part of the NASA/Space Command partnership, became the world's premier asteroid search capability in 1998, and has found more 1-km and larger Near-Earth Asteroids (NEAs) than any other search program thus making major contributions to satisfying NASA's Congressionally directed goals to discover NEAs. Dr. Stokes holds a PhD degree in physics from Princeton University and is a member of the International Astronomical Union.

Yun Wang

Member

Yun Wang is a senior research scientist at the California Institute of Technology. Prior to that, Wang was a professor of physics and astronomy at the University of Oklahoma. Wang is a cosmologist with broad scientific interests, ranging from inflationary physics, strong gravitational lensing, halo substructure of dark matter, the measurement of cosmological parameters, to probing the nature of dark energy. Wang's work on dark energy has included space mission concepts, observational survey strategies, optimal data analysis techniques, and modeling of systematic effects. Wang is the author a graduate textbook on dark energy. Wang has developed space mission concepts in astrophysics since 2004, including Joint Efficient Dark-energy Investigation (JEDI), Astrophysics Telescope for Large Area Spectroscopy (ATLAS), Infrared Satellite for Cluster Evolution Astrophysics (ISCEA), and Satellite for InfraRed Multi-Object Spectroscopy (SIRMOS). Wang was elected a fellow of the American Physical Society in 2012 for leadership in dark energy research. Wang leads galaxy redshift surveys for NASA's Roman Space Telescope and ESA's Euclid mission. Wang served on NASA Astrophysics Advisory Committee from 2014-2018. Wang holds a Ph.D. in physics from Carnegie Mellon University, and carried out postdoctoral research at University of Florida, Fermilab Astrophysics Center, and Princeton University Observatory.