



**Event 2: White Papers for the Solar and Space Decadal
October 18, 2021
Speaker Bios**

- **Dr. Sarah Gibson** is a Senior Scientist at the High Altitude Observatory (HAO) of the National Center for Atmospheric Research. She received her Bachelor's degree in Physics from Stanford University, and her Masters and Doctoral degrees in Astrophysics from the University of Colorado. Her research centers on solar drivers of the terrestrial environment, from short-term space weather drivers such as coronal mass ejections (CMEs), to long-term solar-cycle variation. She is Project Scientist for NASA's PUNCH mission, and a leader of the international Whole Sun Month/Whole Heliosphere Interval/Whole Heliosphere and Planetary Interactions campaigns to characterize the three-dimensional, interconnected solar-heliospheric-planetary system. Dr. Gibson has served on many national and international committees including the Space Studies Board of the National Academies; she was co-chair of its Committee on Solar and Space Physics.
- **Dr. Ravi Kopparapu** (pronounced "Koppa-rapu") is a planetary scientist at NASA Goddard Space Flight Center. His research work includes studying exoplanet atmospheres, their habitability and identifying bio and techno signatures. He was a recipient of NASA Exceptional Scientific Achievement Medal for 2020.
- **Dr. Geronimo Villanueva** is a planetary scientist at NASA-Goddard Space Flight Center who specializes in the search for organic molecules on Mars and on icy bodies. He is Co-Investigator of the ExoMars/TGO mission, Co-Investigator of the Comet Interceptor mission, and leader for Mars and Ocean Worlds studies (GTO) for the James Webb Space Telescope (JWST). He also serves as Science and Management advisor to several observatories, including Keck, NASA-IRTF and ALMA. In recognition to his work on small bodies, the International Astronomical Union (IAU) named minor planet '9724' after Dr. Villanueva, while the American Astronomical Society (AAS) in 2015 honored him with the Urey Prize (young planetary scientist of the year). Since completing his Ph.D. studies at the Max-Planck-Institute for Solar-System Research in Germany in 2004, Dr. Villanueva has participated in many projects at three space agencies, NASA, ESA (European Space Agency) and DLR (German Aerospace Agency), with a broad range of research experience in planetary, exploration and Space sciences. He is a strong advocate for Space Exploration and

Astronomy, participating in numerous public outreach activities, and chosen as Science communicator by the US State Department and Shakira's foundation 'Pies Descalzos' to promote science in developing regions.

- **Dr. Fran Bagenal** was born and grew up in England. In 1976, inspired by NASA's missions to Mars and the prospect of the Voyager mission, she moved to the US for graduate study at MIT. After Voyager flybys of Jupiter, Saturn, Uranus and Neptune she joined the faculty at the University of Colorado, Boulder in 1989. She was professor of Astrophysical and Planetary Sciences until 2015 when she chose to focus on NASA's New Horizons mission to Pluto (flyby July 14, 2015) and Juno mission to Jupiter. She remains a Research Scientist at CU's Laboratory for Atmospheric & Space Physics in Boulder. For the past ~30 years she has followed the demographics of the workforce in space sciences, particularly planetary science. Initially, she focused on the participation of women but has recently extended interest to other historically minoritized communities.
- **Dr. Enrico Ramirez-Ruiz** is a Professor and the Vera Rubin Presidential Chair at the University of California, Santa Cruz (UCSC). After studying at the University of Cambridge, he was the John Bahcall Fellow at the Institute for Advanced Study in Princeton. Professor Ramirez-Ruiz is eager to understand our origins and, in some cases, is simply wild about things that go bang in the night sky. He works with computer models to understand the cataclysmic death of stars and recently led efforts to uncover the origin of the heaviest elements in the universe. Ramirez-Ruiz tests out his theories with complex computer simulations that defy the boundaries of human experience and the assumptions we make about the universe. He has authored or co-authored about two hundred and sixty research papers, two dozen in Science and Nature. He has lectured, broadcast and written widely on science and is a highly decorated teacher and research adviser. As the director of the Lamat Institute, Ramirez-Ruiz works vigorously to support the promotion and retention of women and historically marginalized students in STEM. Since joining the UCSC faculty in 2007, Ramirez-Ruiz has won a number of awards for his research, including a Packard Fellowship, the NSF CAREER Award, the Radcliffe Fellowship at Harvard, the Niels Bohr Professorship from the Danish National Research Foundation, the Bouchet Award from the APS and the HEAD Mid-Career Prize from the AAS. He is a member of the Mexican Academy of Sciences and the American Academy of Arts and Sciences.