

Masao Sako

Candidate for USNC/IAU Representative

Affiliation: University of Pennsylvania

Position/Title: Professor

PhD institution: Columbia University, 2001

Areas of scientific interest:

- Supernova cosmology
- Survey astronomy
- Computational astrophysics
- High-energy astrophysics

AAS and/or Division leadership positions and dates:

- n/a

Other relevant positions, experience, and dates:

- Co-Chair, Roman Space Telescope Core Community Survey Definition Committee, 2023 – present
- Member, Roman Space Telescope Core Community Survey Time Allocation Committee, 2024 – present
- Member, Dark Energy Survey Management Committee, 2020 – present
- Ombudsperson, Dark Energy Survey Collaboration, 2018 – 2022
- Co-Convener, APS Division of Particles and Fields Cosmology and Astrophysics Working Group, 2017
- Co-Convener, Dark Energy Spectroscopic Instrument Time-domain Working Group, 2015 – 2016
- Co-Convener, Dark Energy Survey Supernova Working Group, 2012 – 2017
- Chair, College General Education Committee, University of Pennsylvania, 2024 – 2025
- Faculty Co-Director, Center for Excellence in Teaching, Learning, and Innovation, University of Pennsylvania, 2024 – present
- Program Co-Director, Data Science and Analytics Minor, University of Pennsylvania, 2023 – present
- Chair, University Council Committee on Honorary Degrees, University of Pennsylvania, 2018 – 2024
- Faculty Director, Penn Boot Camps, 2021 – 2025



- Chair, Department of Physics and Astronomy Undergraduate Program, University of Pennsylvania, 2018 – 2022
- Member, School of Arts and Sciences Dean's Council on Diversity, University of Pennsylvania, 2020 – 2022
- Member, Faculty Senate Executive Committee, University of Pennsylvania, 2014 – 2017
- Supervised 12 PhD students and over 50 undergraduate research students

Statement:

I am honored to be nominated to serve on the U.S. National Committee for the International Astronomical Union. Over the past two decades at the University of Pennsylvania, my career has centered on two complementary goals: advancing survey-based astronomy and strengthening undergraduate education. I would bring this dual perspective to help the AAS and USNC/IAU support their members, foster collaboration, and promote astronomy's broader impact.

My research focuses on observational supernova cosmology. My participation in large international collaborations - the Sloan Digital Sky Survey, the Dark Energy Survey, and now Rubin Observatory's Legacy Survey of Space and Time and the Roman Space Telescope - has given me extensive experience working across institutions and national boundaries, and with members from a wide range of personal, cultural, and scientific backgrounds. Through this experience, I have come to appreciate the importance of coordinating international science and ensuring equitable access to shared data and infrastructure. I would advocate for initiatives that promote open science practices, sustainable software development, and training opportunities that enable researchers at diverse institutions to participate fully in large collaborations.

Education and mentoring have been equally central to my professional life. At Penn, I have developed courses and materials that integrate computation, statistics, and real data, with the goal of strengthening critical thinking skills among all students. I believe the AAS and IAU can further support educators by facilitating the exchange of pedagogical resources, highlighting inclusive teaching practices, and reinforcing astronomy's powerful role in advancing scientific and quantitative literacy.

A welcoming and inclusive professional climate is essential for the health of our field. I would support efforts that expand mentoring networks, improve transparency in career pathways, and ensure that international collaborations remain accessible and respectful across cultures and career stages.

Finally, I value the role of the AAS and USNC/IAU as advocates for science. Astronomy's ambitious facilities and data-driven discoveries depend on sustained public and policy support. I would work to communicate the scientific and societal value of our field and to strengthen astronomy's voice in these discussions.

Thank you for considering my nomination and for taking the time to read this statement.