Kyle Dawson
Candidate for At-Large Trustee

Affiliation: University of Utah

Position/Title: Professor

PhD institution: University of California, Berkeley, 2004

Areas of scientific interest:

- Cosmology
- Spectroscopic Surveys
- Large-scale structure

AAS and/or Division leadership positions and dates:

- n/a

Other relevant positions, experience, and dates:

- Co-Spokesperson, Dark Energy Spectroscopic Instrument (DESI), 2020 – present
- Chair, Astronomy and Astrophysics Advisory Committee, 2022 – 2023
- Deputy Chair, Astronomy and Astrophysics Advisory Committee, 2020 – 2022
- Member, Astronomy and Astrophysics Advisory Committee, 2019 – 2020
- Member, DOE-HEP Cosmic Visions Dark Energy panel, 2017 – 2020; planning for future surveys
- Panelist, Basic Research Needs for Future Dark Energy Research, High Energy Physics Instrumentation, 2019 – 2020
- eBOSS Principal Investigator, SDSS-IV, 2017 – 2020
- eBOSS Instrument Scientist, SDSS-IV, 2014 – 2017
- External reviewer and referee (continuing)

Statement:

The 2021-2026 AAS mission strategic plan has identified five priorities. The priority to “Address significant global issues that affect astronomy” is quite broad and most closely aligns with my previous experience in advocacy for the astronomy community. Through these previous roles, I have contributed to each of the actions identified in the strategic plan: government advocacy, dark and quiet skies, large satellite constellations, climate change, and professional support. I am flattered to be considered for the role of At-Large Trustee, where I would support the Board in communicating resolutions and actions around these issues to the astronomy community.

During my time as a member of the “Dark Energy Cosmic Visions” group, we identified small projects worthy of investment within the Department of Energy Cosmic Frontier program, notably technologies for large spectroscopic surveys. Our reporting supported successful proposals to advance CCD technology on new materials and new instrumentation for multi-object fiber positioning. I continued this effort as one of four contributors from the field of cosmology in identifying “Basic Research Needs in High Energy Physics Instrumentation”. In that yearlong effort, the participants identified cutting-edge technologies that would enable new discoveries from the smallest scales to the largest distances in the Universe. We reported these priorities to the Office of Science within DOE to provide guidance on future funding initiatives.

More recently, I completed my term as Chair for the Astronomy and Astrophysics Advisory Committee (AAAC). The AAAC advises the NSF, DOE, and NASA and reports yearly progress, priorities, and challenges within astronomy to the relevant committees in the US House, Senate, and White House. In 2021, we recommended agency efforts to mitigate the impacts of COVID-19, with a focus on early career scientists and for Congress to consider additional funding to mitigate the impacts of COVID-19. In 2022, we recommended transparency in the collection of demographic data for grant awardees to ensure a fair process in reviews and funding. We continued in 2023 with recommendations for NSF, NASA, and DOE to work with the Office of Science and Technology Policy (OSTP) and Office of Management and Budget (OMB) to establish consistent collection of demographic data. In 2023, we also addressed the challenges in funding and infrastructure for the construction of the Extremely Large Telescopes and CMB-S4 experiment, and described to our elected officials the impact of satellite constellations on ground-based astronomy.

The questions of technology, professional development for graduate students and postdoctoral researchers, and development of ground-based astronomy will remain on the forefront in the period that I would serve as an At-Large Trustee. If elected, I would be thrilled to help AAS communicate these issues and other priorities to the US astronomy community and work within AAS to advance the field.