

Transformational UV Astrophysics with the Habitable Worlds Observatory Jason Tumlinson

The Habitable Worlds Observatory will be a 6-8 meter UVOIR telescope with revolutionary capability to detect and characterize Earth-like worlds and rewrite the textbook chapters on stars, galaxies, and much else of what we know about astrophysics. Because of its large aperture and novel instrument capabilities, HWO will be able to obtain high resolution imaging and highly multiplexed spectroscopy in the UV. I will review the driving science cases for HWO's UV coverage, sensitivity, and multiplexing, and provide guidance for how the global astronomical community can get involved in developing these science cases and in defining the instrumentation over the next few years.