

Rachel Langgin
University of Nevada, Las Vegas

Rachel Langgin is pursuing a Ph.D. in Astronomy at the University of Nevada, Las Vegas. Previously, she completed her undergraduate studies at Bryn Mawr College in Pennsylvania and earned a B.A. in Astrophysics at Haverford College. Rachel's work uses gravitational waves to learn about astrophysics and the extremes of the Universe. Her current project focuses on utilizing early-warning gravitational wave signals preceding binary neutron star mergers to refine source location and observe electromagnetic counterparts in collaboration with Dr. Brad Cenko, Principal Investigator of the Neil Gehrels Swift Observatory. Her Ph.D. advisor is Dr. Carl-Johan Haster, and they are both members of the LIGO-Virgo-Kagra Scientific Collaboration. Rachel is primarily interested in binary compact objects, such as black holes and neutron stars, and the astrophysical processes through which these objects form and evolve.

Outside of her academic endeavors, Rachel enjoys sharing her excitement for astrophysics through astronomy outreach and public observing opportunities for the general public and community. She hopes to further empower and work with young Las Vegas local students to spread her curiosity about the cosmos. Upon completion of her Ph.D., she aims to continue working in the gravitational wave astrophysical sector as a researcher and instructor. In her spare time, Rachel is an avid music, dance, and art enthusiast, broadening her artistic capabilities while implementing movement in space and time from a unique physical perspective in her daily practices.