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Studying Galactic Compact Binary Systems with HAWC at Multi-TeV Energies CHANG DONG RHO, Univ of Rochester, HAWC COLLAB-ORATION — Compact binary systems can emit very high energy gamma rays via particle acceleration and interactions within jets and accretion disks. Measurements of these objects can help explain mechanisms of cosmic-ray acceleration and propagation, which are not fully understood. The High Altitude Water Cherenkov (HAWC) Observatory is a wide field-of-view and high-uptime detector of TeV gamma rays that is capable of long-term measurements of transient and periodic sources such as compact binaries. We report on observations of several Galactic binaries with HAWC, and discuss ongoing multi-wavelength campaigns as well as modeling of gamma-ray backgrounds in the Northern Hemisphere.

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