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Results from an IceCube Search for High-Energy Neutrino Emission from X-ray Binaries QINRUI LIU, University of Wisconsin - Madison, ALI KHEIRANDISH, Pennsylvania State University, ICECUBE COLLABORATION — X-ray binaries are one of the long-standing candidates as the source of Galactic cosmic rays and neutrinos. The compact object in a binary system can be the site for cosmic-ray acceleration, while interactions of cosmic rays can happen in the jet of the compact object, the wind, or the companion stars atmosphere, which produce high-energy neutrinos. I will talk about a comprehensive study of TeV-scale neutrinos from high-mass and low-mass X-ray binaries conducted by IceCube using muon data. In the absence of significant correlation, we place upper limits on the neutrino fluxes from these sources and provide a comparison with theoretical predictions. Finally, I will present the detectability of X-ray binaries in IceCube-Gen2.

Qinrui Liu
University of Wisconsin - Madison

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