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First Very High-Energy Gamma-Ray Observations of the Eclipsing Millisecond Pulsar PSR J1023+0038¹ ANDREW LOO, Columbia University/Barnard College, VERITAS COLLABORATION — The eclipsing millisecond pulsar PSR J1023+0038 exhibits many similar characteristics to PSR B1259-69 but at a smaller scale, making it an ideal candidate for the study of high-energy non-thermal emission. We present here the first very high-energy (VHE) gamma-ray observations of PSR J1023+0038, carried out by VERITAS between December 2010 and February 2011. No gamma-ray signal has been detected either from a steady search of the whole data or in any of the orbital phases during this observational period. The prospects for detecting this type of system with more sensitive detectors will also be discussed.

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