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The Galactic Center Region Imaged by VERITAS

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The galactic center (GC) has long been a region of interest for high-energy and very-high-energy (VHE) observations. Many potential sources of GeV/TeV gamma-ray emission have been suggested for the GC region, e.g., the accretion of matter onto the black hole, cosmic rays from a nearby shell-type supernova remnant, or the annihilation of dark matter. The GC has been detected at MeV/GeV energies by EGRET and recently by Fermi/LAT. At TeV energies, the GC was detected at the level of 4 standard deviations with the Whipple 10 m telescope, by CANGAROO, and by H.E.S.S. with a significantly better sensitivity. We present the results from 15 hrs of VERITAS GC observations conducted at large zenith angles, resulting in a >10 standard deviation detection. The sky map is shown, and the combined Fermi/H.E.S.S. and VERITAS results are compared to dark matter and astrophysical models.

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