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Dark Matter Searches using Dwarf Galaxies with HAWC

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The High Altitude Water Cherenkov (HAWC) gamma-ray observatory is a wide field-of-view observatory sensitive to 0.5 TeV - 100 TeV gamma-rays and cosmic-rays in the State of Puebla, Mexico at an altitude of 4100m. The HAWC observatory performed an indirect search for dark matter via GeV-TeV photons resulting from dark matter annihilation and decay considering various sources, including 15 dwarf spheroidal galaxies (dSphs) and 31 dwarf irregular galaxies (dIrr), as well as combined limits for the dSphs and dIrrs. We searched for dark matter annihilation and decay at dark matter masses above 1 TeV. We have not detected statistically significant excess from these sources, thus we will present the calculated annihilation cross-section and decay lifetime limits.

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