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Dark Matter Searches 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. 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 dwarf spheroidal galaxies (dSphs), the M31 galaxy, and the Virgo cluster. HAWC has not seen statistically significant excess from these sources. We searched for dark matter annihilation and decay at dark matter masses above 1 TeV, including masses higher than 70 TeV that are currently unconstrained. We will present the annihilation cross-section and decay lifetime limits.

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