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Limits on the long-term very high-energy emission from the extreme blazar 1ES 0229+200 as observed by HAWC THOMAS WEISGARBER, California University of Pennsylvania, HAWC COLLABORATION — The blazar 1ES 0229+200 is the archetypical member of the extreme high-frequency peaked BL Lacertae (EHBL) class of objects. Observations by imaging atmospheric Cherenkov telescopes (IACTs) have revealed that the very high-energy (VHE) spectrum of 1ES 0229+200 is surprisingly hard and only weakly variable. Several studies have used the observed IACT spectrum to place constraints on both the extragalactic background light and the intergalactic magnetic field. However, these studies rely on the assumption that the spectrum as measured by the IACTs is a good representation of the long-term VHE emission from 1ES 0229+200. With its wide field of view and near-100% duty cycle, the High Altitude Water Cherenkov (HAWC) Observatory provides complementary observations of 1ES 0229+200 that can be used to check this assumption. In this presentation, we report on observations of 1ES 0229+200 using more than three years of data from HAWC. We discuss the implications of the HAWC non-detection of 1ES 0229+200 in the context of the spectra reported by the IACTs.

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