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# Identifying Short, Extreme Blazar Flares with the HAWC Real-Time Flare Monitor

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We present a search for hour-scale very high energy (VHE) flares from 187 blazars monitored by the HAWC observatory. With a wide field of view of ˜2 sr and sensitivity to energies above a few hundred GeV, HAWC functions as a survey instrument and facilitates searches for rapid variability in the VHE band. The currently operational HAWC real-time flare monitor takes advantage of this capability by issuing alerts within minutes of the identification of flaring activity. In this presentation, we describe the real-time flare monitor and report on the detection of several rapid flares in over 2 years of data collected between November 2014 and February 2017. We interpret these observations as an unbiased constraint on the rate of extreme blazar flares. We also summarize the prospects for future multiwavelength studies of extreme flares detected by the real-time flare monitor to provide clues into the mechanisms powering the blazar jets and probe the particles and fields in intergalactic space.

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