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MAGIC observations of extreme blazars

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The current generation of Cherenkov telescopes have identified a population of BL Lacertae objects characterized by a hard spectrum in the TeV band. The peak of their gamma-ray SED component is located beyond 100 GeV and up to several TeV, and their synchrotron peak is located beyond 1 keV and often in the hard-X-ray band. These peak frequencies are extreme within the blazar population, at the very end of the so-called blazar sequence, justifying the name extremely-high-frequency-peaked BL Lac objects (EHBLs) for this blazar subclass. The MAGIC array of Cherenkov telescopes started a long-term observing campaign on EHBLs, with the double goal of monitoring the gamma-ray emission from EHBLs, and extending the EHBL population. Interestingly, some standard HBLs have also been observed in a transient EHBL-like state during flaring activity. The results from MAGIC and multi-wavelength observations of EHBLs will be presented in this contribution.

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