Seventeenth Marcel Grossmann Meeting



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Synergies between IXPE and MAGIC observations of blazars

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MAGIC is an imaging atmospheric Cherenkov telescope that has been observing very high energy gamma rays above 100 GeV for over 20 years. Thanks to its location and low energy threshold, MAGIC is particularly well-suited for observing blazars. Its observation strategy combines the monitoring of a few selected sources with the observation of new targets, often triggered by Target of Opportunity (ToO) events. Past multi-wavelength observations have highlighted the complexity of blazars, both in their temporal and spectral evolution. MAGIC has significantly contributed to this understanding with precise spectral measurements at the highest energies and detailed studies of variability timescales. A particularly relevant aspect still under investigation is the jet structure and the acceleration mechanism. The opening, with IXPE, of the new observational window of X-ray polarimetry marks a significant step forward in understanding these objects. In this contribution, I will provide an overview of blazars observed by MAGIC that are of particular interest to IXPE, highlighting recent results and possible future observational strategies and targets. Special emphasis will be placed on the studies of the two blazars Mkn 421 and Mkn 501, which involve joint observations by MAGIC and IXPE.

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