

Establishing the MAGIC data legacy: adopting standardised data formats and open-source analysis tools

Thursday, 7 July 2022 18:00 (15 minutes)

The open data access that will be provided by the next generation of gamma-ray observatories has encouraged the development of standardised data formats and open-source analysis software. Many recent publications have demonstrated the applicability of the specifications proposed by the community-driven “Data formats for gamma-ray astronomy” (GADF) initiative to ground-based gamma-ray instrument data. They have also validated the analysis of GADF-compliant data with open-source analysis tools such as Gammapy.

In this contribution, we present the effort to adopt the same specifications for the data taken with the MAGIC telescopes. We reproduce results from the literature for some reference sources, validating the Gammapy analysis against results obtained with the MAGIC closed-source software, MARS. The adoption of these standardized data formats and open-source science tools by the MAGIC Collaboration for its scientific analyses marks an important milestone in building a data legacy for its two decades of observations.

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Session Classification: Contributed Talks