PROCEEDINGS OF SCIENCE

H.E.S.S. data analysis with open source science tools

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Collaborations managing Cherenkov telescope arrays (presently H.E.S.S., VERITAS, and MAGIC) own their data and software in private servers, only accessible to their members. However, the upcoming Cherenkov Telescope Array (CTA) will operate as an observatory, calling for powerful high-level science tools usable by the whole astronomical community.

Within the H.E.S.S. collaboration, we have produced software to export our data and instrument response functions to the standard astronomical FITS format; and to use and contribute to open-source gamma-ray astronomy data analysis packages: GammaLib/ctools, and Gammapy together with Astropy and Sherpa.

We present a summary of our experience with the FITS data formats and open source tools, comparing them to the HESS-internal data formats and tools.

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