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Gammapy: An open-source Python package for gamma-ray astronomy

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In the past decade imaging atmospheric Cherenkov telescope arrays such as H.E.S.S., MAGIC, VERITAS, as well as the Fermi-LAT space telescope have provided us with detailed images and spectra of the gamma-ray universe for the first time. Currently the gamma-ray community is preparing to build the next-generation Cherenkov Telescope Array (CTA), which will be operated as an open observatory.

Gammapy (available at <https://github.com/gammapy/gammapy> under the open-source BSD license) is a new in-development Astropy affiliated package for high-level analysis and simulation of astronomical gamma-ray data. It is built on the scientific Python stack (Numpy, Scipy, matplotlib and scikit-image) and makes use of other open-source astronomy packages such as Astropy, Sherpa, gammalib and Naima to provide a flexible set of tools for gamma-ray astronomers. We present an overview of the current Gammapy features and example analyses on real as well as simulated gamma-ray datasets. We would like Gammapy to become a community-developed project and a place of collaboration between scientists interested in gamma-ray astronomy with Python. Contributions welcome!

Collaboration

– not specified –

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