Contribution ID: **146**   Type: **oral**

Gammapy: the Python package for gamma-ray astronomy into the Open Science

Thursday, 26 September 2024 15:26 (17 minutes)

Gammapy is an open-source Python package for the analysis of astronomical gamma-ray data. Starting from event lists and instrument response functions, Gammapy provides functionalities to reduce these data and generate the astrophysical high-level products needed for the very-high-energy domain. Its capacity to fit multi-instrument data using disparate astrophysical models demonstrates its versatility and strength. Despite being recognized as an open research software, Gammapy is being used as a reference library by a number of gamma-ray experiments and, in 2021, the CTA observatory chose it to be the core library for its official Science Analysis Tool.

The Gammapy team started the library in 2013 and has recently worked to make it a multi-wavelength/multi-messenger analysis tool that is interoperable with Python astrophysical modeling libraries. In addition, being involved in the Open Science movement, the team has undertaken to fully follow the FAIR4RS principles and to implement, where possible, the IVOA recommendations.

This presentation will describe the Gammapy project, synthetize its design and features, and summarize its refinements within the Open Science panorama.

Primary author: KHELIFI, Bruno (APC, IN2P3/CNRS - Université de Paris)

Presenter: KHELIFI, Bruno (APC, IN2P3/CNRS - Université de Paris)

Session Classification: Hardware & Software Developments