Contribution ID: **148** Type: **oral**

Fermi-LAT Discovery of a Gamma-ray Outburst from Comptact Steep Spectrum object 3C 216

Thursday, 26 September 2024 14:00 (17 minutes)

3C 216 is an extra-galactic radio source classified as a Compact-Steep Spectrum. The source is known to have extended radio structure on kpc scale and a blazar core on pc scale. In general high energy emission is more easily observed in blazars, whose jets are closely aligned with the line of sight. Starting from November 2022 Fermi-LAT observed an enhancement in the gamma-ray activity of 3C 216, which culminated in a strong outburst in May 2023. The event was followed up by the Swift telescope. We performed a careful analysis of the multifrequency data (optical, UV, X-ray, Gamma-ray) collected in the first week of May 2023. We observed that the spectral energy distribution of the flaring source evolves in a coherent way, suggesting that the multifrequency emission traces back to the same origin. This result supports the idea that the gamma-ray emission can be interpreted within a single zone Synchrotron Self-Compton model, with important implications on the mechanisms that power energetic radiation in AGN jets.

Primary author: GIACCHINO, Federica (Istituto Nazionale di Fisica Nucleare)

Presenter: GIACCHINO, Federica (Istituto Nazionale di Fisica Nucleare)

Session Classification: Searches for Extragalactic astrophysical sources 2