# XIII International Conference on New Frontiers in Physics 2024

XIII International Conference on New Frontiers in Physics \$25 Aug - 4 Sep 2024, CAC, Kolymbari, Crete, Greece

Contribution ID: 137

Type: Talk

# 16 years of gamma rays discoveries and AGNs observations with Fermi LAT

Monday 2 September 2024 09:00 (30 minutes)

In june 2024, the Fermi Gamma-ray Space Telescope has celebrated its  $16^{th}$  year of operations. The Large Area Telescope (LAT) is the main instrument onboard the Fermi satellite and is designed to be sensitive to gamma rays in the energy range from about

unit[20]MeV up to the

unitTeV regime. From its launch, the LAT has collected more than 4.53 billion photon events, providing crucial information to improve our understanding of particle acceleration and gamma-ray production phenomena in astrophysical sources. The most abundant in the last Fermi LAT source catalog (4FGL-DR4) and powerful, persistent gamma-ray emitters in the sky are Active Galactic Nuclei (AGNs), extremely luminous galaxy cores powered by supermassive black holes with a mass ranging from millions to billions of times the mass of the Sun. In this talk, some of the main results obtained by the Fermi LAT collaboration will be reviewed, with a particular focus on AGNs science, with examples of long-term multi-wavelength variability observations of blazars across different states of activity.

#### Internet talk

No

# Is this an abstract from experimental collaboration?

Yes

### Name of experiment and experimental site

FermiLAT

#### Is the speaker for that presentation defined?

Yes

## Details

Fausto Casaburo INFN Tor Vergata & SSDC-ASI

#### Author: CASABURO, Fausto

**Co-authors:** GASPARRINI, Dario (INFN - National Institute for Nuclear Physics); GIACCHINO, Federica; CIPRINI, Stefano (INFN Roma Tor Vergata & SSDC ASI)

Presenter: CASABURO, Fausto

Session Classification: Cosmology, Astrophysics, Gravity, Mathematical Physics

Track Classification: Main topics: Cosmology, Astrophysics, Gravity, Mathematical Physics