

GAMMA-400 gamma-ray observations in GeV and TeV energy range

Thursday, 10 June 2021 12:55 (15 minutes)

Future space-based GAMMA-400 gamma-ray telescope will operate aboard Russian astrophysical observatory in the highly elliptic orbit during 7 years. Observing gamma-ray sources from Galactic plane, gamma-ray bursts, emission from diffuse gamma rays, the Sun, dark matter particles will be performed uninterruptedly for a long time (~ 100 days) in point-source mode in contrast to scanning mode for Fermi-LAT and other space- and ground-based instruments. GAMMA-400 will measure gamma rays in the energy range from ~ 20 MeV to several TeV, have the unprecedented angular ($\sim 0.01^\circ$ at $E_\gamma = 100$ GeV) and energy ($\sim 2\%$ at $E_\gamma = 100$ GeV) resolutions better than the Fermi-LAT, as well as ground gamma-ray telescopes, by a factor of 5-10, and perfectly separate gamma rays from cosmic-ray background.

Primary author: Dr TOPCHIEV, Nikolay (LPI RAS)

Co-author: Prof. GALPER, Arkady (National Research Nuclear University MEPhI (Moscow Engineering Physics Institute))

Presenter: Dr TOPCHIEV, Nikolay (LPI RAS)

Session Classification: TeV-PeV gamma rays

Track Classification: TeV-PeV gamma rays