

# Perspectives of the GAMMA-400 space observatory for high-energy gamma rays and cosmic rays measurements.

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The GAMMA-400 gamma-ray telescope is intended to measure the fluxes of gamma-rays and cosmic-ray electrons and positrons in the energy range from 100 MeV to several TeV. Such measurements concern with the following scientific tasks: investigation of point sources of gamma-rays, studies of the energy spectra of Galactic and extragalactic diffuse emission, studies of gamma-ray bursts and gamma-ray emission from the Sun, as well as high precision measurements of spectra of high-energy electrons and positrons. Also the GAMMA-400 instrument provides the possibility for protons and nuclei measurements up to knee. But the main goal for the GAMMA-400 mission is to perform a sensitive search for signatures of dark matter particles in high-energy gamma-ray emission. To fulfill these measurements the GAMMA-400 gamma-ray telescope possesses unique physical characteristics in comparison with previous and present experiments. The main strength of the GAMMA-400 instrument is its expected excellent angular and energy resolution for gamma rays above 10 GeV. The GAMMA-400 experiment will be installed onboard of the 'Navigator' space platform, manufactured by the NPO Lavochkin Association, able to accommodate high mass - large volume scientific payload. The expected orbit of the payload will mean that observations will not suffer disruption from Earth occultation hence allowing for deep observations of the sources of interest.

## Presentation type

Section talk (10+5 min)

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