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The NUSES space mission

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The NUSES space mission is a novel project designed to explore cosmic and gamma rays, high-energy astrophysical neutrinos, the Sun-Earth environment, space weather and magnetosphere-ionosphere-lithosphere coupling (MILC).
Additionally, NUSES aims to pave the way for future missions by testing innovative technologies and observational strategies.

The satellite will house two payloads known as Terzina and Zirè.

Zirè will measure fluxes of electrons, protons, and light nuclei ranging from a few to hundreds of MeV.
It will also evaluate new tools for detecting cosmic MeV photons and monitoring MILC signals.

Terzina will monitor near-UV and visible light emissions from the Earth's limb on a nanosecond timescale, thereby testing the concept of detecting Cherenkov light from extensive air showers produced by UHERC's or Earth skimming high energy neutrinos.

This presentation will discuss the current status of the NUSES project design, as well as the scientific and technological objectives of the mission.

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