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## Low Earth Orbit compact Neutron detector

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### Abstract

The PoliTech-1 mission consists of a nanosatellite that includes various payloads, among which is the LEON system (Low Earth Orbit compact Neutron detector). Its primary scientific objective is to measure the temporal dynamics of the low-energy neutron terrestrial albedo, depending on the solar activity level, time, and the satellite's spatial coordinates. The measurements will enable the creation of experimental maps of secondary low-energy neutrons in the LEO orbit, in order to validate the models used in the simulation and determination of cosmic ray fluxes in LEO. The presentation will provide a detailed overview of both the mission and the development progress of the LEON system in order to achieve the mission's objectives.

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