

## **Seminarium Astrofizyczne**

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#### **Cosmic Ray Extremely Distributed Observatory (CREDO): status and prospects**

The Cosmic-Ray Extremely Distributed Observatory (CREDO) is a global collaboration aimed at study of cosmic rays (CR) and cosmic-ray ensembles (CRE): particle cascades resulting from interactions of high-energy cosmic rays with radiation, matter and fields while propagating in space. The CREDO program encompasses testing already known CR scenarios, being prepared to observe unexpected physics as well, which makes it suitable for multi-messenger and interdisciplinary applications. Since CRE might arise in a wide range of processes and physics conditions, they are expected to be spread temporally and/or spatially, and compose constituents covering the whole cosmic-ray energy spectrum. Thus, the potential observation of at least parts of such phenomena sets additional requirements to the size of a detection infrastructure. In the current talk, we discuss the challenges the CREDO project faces and overview its results and perspectives.

Serdecznie zapraszam,

Agnieszka Majczyna