

Cosmic Ray Extremely Distributed Observatory,
Institute of Nuclear Physics Polish Academy of Sciences

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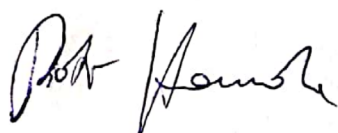
INVITATION TO JOIN THE CREDO COLLABORATION

Dear Potential Contributor to a Game Changing Discovery,

The Cosmic Ray Extremely Distributed Observatory (CREDO) warmly invites you to join the global collaboration in the field of high-energy multi-messenger astrophysics, based on massive public engagement in citizen science, and with the multiplanar and transdisciplinary potential, e.g. in biophysics, geophysics, climatology, industry, and education.

CREDO is an ongoing international scientific collaboration (to date 28 institutions from 12 countries on 5 continents) and programme aiming mostly at searching for large scale correlations of cosmic rays. The CREDO strategy is based on operating a global network of cosmic-ray detectors of various sizes and diverse technologies in order to reach sensitivity to cosmic-ray ensembles (CRE): groups of correlated cosmic particles (including photons) that might have energies spanning the whole energy spectrum of cosmic rays. This approach has the potential to reveal even the most fundamental properties of the Universe, including e.g. the structure of space-time or nature of dark matter. Until recently, cosmic ray research has been focused on detecting single air showers, while the search for ensembles of cosmic rays, which may spread over a significant fraction of the Earth's surface, is a scientific *terra incognita*. The key idea of CREDO is to combine existing cosmic-ray detectors (large professional arrays, educational instruments, local networks, individual detectors, such as smartphones, etc.) into a worldwide network, thus enabling a global analysis. Apart for primary astrophysics goals, the global CREDO network of intelligent radiation sensors would offer unique transdisciplinary research opportunities and a novel, stimulating, large scale educational environment.

We are looking forward to welcoming you aboard the CREDO Collaboration! Questions and applications should be sent to contact@credo.science.



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