PAiP-2025 conference "Particle Astrophysics in Poland"



Contribution ID: 110

Type: Regular plenary talk

Intriguing correlation between earthquakes and cosmic radiation

Friday, 21 February 2025 14:43 (13 minutes)

There is a statistically solid (on a six sigma level) correlation between the global seismic activity and changes in the intensity of cosmic radiation recorded at the surface of our planet, dubbed the cosmo-seismic effect (https://press.ifj.edu.pl/en/news/2023/06/14/). The relationship which has recently been found in public data by the Cosmic Ray Extremely Distributed Observatory (CREDO) Collaboration is physically intriguing: the available astrophysical and geophysical paradigms do not point to a plausible conventional scenario which would explain the phenomenon without an external steering factor capable of affecting both cosmic radiation, and seismicity. In the talk I'll describe the key characteristics of the cosmo-seismic correlation, and highlight the main threads of the analysis oriented on possible physical interpretations. Since the phenomenon remains unexplained despite intense efforts, I'll take the opportunity to consult the audience, counting particularly on your critical thinking skills (maybe there is a trivial explanation we fail to see), and open-mindedness (if the paradigms fail maybe we should think beyond). Who knows where this unexpected scientific adventure may lead.

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Session Classification: Cosmic Rays

Track Classification: Cosmic Rays