

Global Cosmic Rays Observatory (GCOS)

Wednesday, 27 July 2022 16:00 (15 minutes)

The Global Cosmic Rays Observatory is a proposal for a new large-scale observatory to measure the properties of ultra-high energy cosmic rays. To discuss this proposal the first workshop, gathering more than 200 scientists, was followed by a meeting in July 2022 when a more detailed science case and detector design have been discussed. Several questions paved the way of discussions: In ten years from now what do we expect to unveil on the origin of cosmic rays, their nature, energy, and arrival directions? If a next-generation ground based experiment is built, which are the main characteristics to improve upon the results expected from Pierre Auger Observatory and Telescope Array experiment? Based on these expectations and the science case, which is the energy range to be addressed by this new Observatory? We will present the scientific results that might be achievable with GCOS in different science and detector configurations scenarios.

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