

The Energy Frontier in Nature: Highest Energy Cosmic Radiation

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Abstract content

Cosmic rays have been observed up to several 10^{20} eV through the showers of secondary particles they induce in the atmosphere. Their existence poses formidable challenges and exciting prospects at the same time: Their origin and sources have not been identified yet, but they already allow to test physics at center of mass energies unattained in the laboratory, albeit in a rather indirect way. We will give an overview over the current situation, open questions and future prospects, including the role of secondary gamma-rays and neutrinos produced in interactions of charged primary cosmic rays.

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