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Institute of Physics
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I n v i t a t i o n

to the seminar of Division of Elementary Particle Physics
of the Institute of Physics of the Czech Academy of Sciences

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Energy spectrum of cosmic rays measured at the Pierre Auger Observatory and its low-energy extension

Abstract: Measurement of the energy spectrum of cosmic rays is one of the key results of the Pierre Auger Observatory. Five different methods currently used at the Observatory to estimate the energy spectrum are presented. The main focus is given to the low-energy extension of the measurement utilizing for the first time Cherenkov-dominated data collected by the fluorescence detector. The energy spectrum combined from available methods starts at $10^{15.5}$ eV and spans over more than four decades in energy allowing us to observe four spectral features connected to changes in the primary cosmic ray beam. Ongoing upgrade of the Pierre Auger Observatory and comparisons with other experiments are discussed.

Seminar will take place on **Thursday, September 24, 2020 at 2PM** in the conference hall in the building of the Institute of Physics, Na Slovance 2, Prague 8 on the ground floor. It will be also held via **ZOOM video conference** system, for more info, see <https://indico.fzu.cz/event/6/>

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