

Practical use of the Modular Cosmic Ray Detector (MCORD) in the search for Cosmo-Seismic correlations in the CRED-MEXICO program.

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Abstract

The Modular Cosmic Ray Detector (MCORD) is a simple and relatively inexpensive design based on plastic scintillators and silicon photomultipliers. Its modular construction, based on sections consisting of eight scintillators, gives the possibility of flexible scaling of the size, shape and configuration of the detector. Thanks to this, it can be used both for laboratory measurements and in large physical experiments. MCORD enables the quantitative detection of muons, along with the determination of their direction, originating from cosmic showers and particle decays resulting from collisions. So it can be used both for astrophysical observations and as an additional detector/trigger for physics experiments. The construction and features of the MCORD detector will be described. The planned use of the detector in the CRED-MEXICO program and other experiments will be shown.

Comments

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