

Cosmic magnetic monopole search experiment SCEP

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Whether the magnetic monopole (MM) exists is a long-standing question in particle physics. It is postulated to be crucially related to the quantization of the electric charge. Under the framework of the Grand Unified Theory (GUT), a certain amount of MMs are produced during the splitting between strong and electroweak forces, which occurred very shortly after the big bang. Past efforts were focused on searching for such GUT-MMs using super-conducting coils or large low-background detectors, which demand ultra-low temperatures or underground environment. In this talk, I will introduce SCEP experiment which searches for coincidental signals of MMs in high-precision magnetometers and plastic scintillators. The recent progress of the experiment will also be given.

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