

Examination of Xmax anisotropy for the next generation Ultra-high energy cosmic rays observation

Estimation of the mass composition in ultra-high energy cosmic rays is essential to understand their origin and generation mechanism. Recent experiments are expected to discover anisotropy of the mass composition in ultra-high energy cosmic rays. Anisotropy analysis of mass composition using Xmax is currently being performed, but the problem is that the statistics of cosmic rays with Xmax information is limited. For the next generation experiments, it is important to know how much statistics should be accumulated to find Xmax anisotropy. Therefore, in this analysis, we examine of Xmax anisotropy search for ultra-high energy cosmic rays under various conditions for the case where there is a difference in Xmax in the reported anisotropy.

Primary author: Mr SAITO, Ryosuke (Graduate School of Science and Technology, Shinshu University)

Co-authors: Mr TOMIDA, Takayuki (Shinshu University); Mr IKEDA, Daisuke (Kanagawa University)

Presenter: Mr SAITO, Ryosuke (Graduate School of Science and Technology, Shinshu University)