Workshop on Muon Physics at the Intensity and Precision Frontiers (MIP 2024)



Contribution ID: 74 Type: Poster

A new muon transmission imaging algorithm

Saturday 20 April 2024 18:15 (5 minutes)

一种新的缪子透射成像算法

Muography is a promising non-destructive probing method with unique advantages for geophysical detection and historical relics protection, among others. It utilizes muon absorption for large-scale object imaging. However, traditional algorithms have limitations in reconstructing anomalies distant from the detectors, leading to deformation or "fake" anomalies. To address this problem, we propose the innovative "seed" algorithm. Testing it in synthetic scenarios and mineral exploration, we demonstrate its superior capability in shaping and evaluating distant anomalies. The successful application of the "seed" algorithm expands the range of muography, particularly for on-site experiments.

Author: Ms LIU, Guorui (Lanzhou Univ.)

Presenter: Ms LIU, Guorui (Lanzhou Univ.)

Session Classification: Poster (For two days)