



Contribution ID : 111

Type : **Poster**

MPD TPC alignment

Thursday, 1 December 2022 13:00 (15)

A method for finding the position of the sectors of the time projection chamber based on experimental data is proposed. Based on the results of modeling the response of the sensitive elements of the camera, three types of tracks were reconstructed: cosmic muons, beams of the laser detector system and muons from the interaction of nuclei. Using these artificial experiment data and the proposed method of finding the position of sectors, the accuracy of sector alignment was investigated. For cosmic and laser rays, the accuracy is approximately the same. It is ~ 700 microns for the shift of the origin of the sector and 7 angular minutes for Euler angles. The accuracy in the case of muons born in collisions of nuclei is several times worse.

Primary author(s) : Dr. KUZMIN, Valentin (Moscow State University)

Presenter(s) : Dr. KUZMIN, Valentin (Moscow State University)

Session Classification : Poster Session

Track Classification : Facilities and advanced detector technologies