

## **Identification of the charged particle tracks using novel pixel detectors**

In modern high energy and elementary particle physics experiments, studies of extreme states of matter play a key role. To investigate of these states in the collider experiments in nucleus–nucleus collisions one can use the modern software and hardware complexes for the charged particle tracking.

This work gives the overview of modern algorithms for the search and reconstruction of charged particle tracks registered using monolithic active pixel detectors. Also new results for cosmic ray tracking and medium-energy charged particles tracking are presented.

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