

MPD-ITS current status

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D mesons and the λ baryon are currently considered as one of the most perspective probes for search of quark de-confinement of the matter during its transition from a state of hadron gas to quark-gluon plasma. The tracking system of the MPD experiment at NICA collider will include the vertex silicon detector MPD-ITS designed for the efficient registration of these short-lived products of nuclear-nuclear interactions, to be built using Monolithic Active Pixel Sensors (MAPS) based on the MICA chip that is being developed in the framework of a dedicated Consortium that was born from the long-lasting collaboration between JINR and Chinese institutions lead by the Central China Normal University (Wuhan). The second prototype of such a chip is expected to be received at JINR by July 2025. The present status of the MPD-ITS project is reported here.

Primary authors: SHEREMETEV, Aleksei (JINR); CEBALLOS SANCHEZ, Cesar (JINR); ANDREEV, Denis (JINR); DEMENTIEV, Dmitry (JINR LHEP); TSAPULINA, Ekaterina (JINR); ARTECHE DIAZ, Rodolfo (JINR); KONDRATIEV, Valery (Saint-Petersburg State University); MURIN, Yuri (JINR)

Presenter: TSAPULINA, Ekaterina (JINR)

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