

Si-MWPC tracking and momentum reconstruction for SRC-2022 experiment

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BM@N is the first operating fix-target experiment at the NICA collider facility at JINR. BM@N is using ion beams from the Nuclotron accelerator ring to study the properties of cold dense baryonic matter. In 2017 the physics program of BM@N was enriched by studies of Short-Range Correlations (SRC) in carbon nuclei. SRC are specific nucleon configurations, where nucleons are separated by a distance comparable with the nucleon radius and having high and opposite momenta exceeding the Fermi level for the given nucleus. The first SRC measurement took place in 2018, and the first results were published in 2021. In 2022 the second measurement of SRC in inverse kinematics at the BM@N setup was carried out. It aims at measuring absolute cross-sections, improving resolutions, and increasing the statistics. This contribution presents the Si-MWPC tracking and momentum reconstruction procedure for the SRC-2022 experiment.

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