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The soft physics observables and the space-time picture of nuclear collisions in the integrated hydrokinetic model

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4. The soft physics observables and the space-time picture of nuclear collisions in the integrated hydrokinetic model.

It will be demonstrated how using the integrated hydrokinetic model and the soft physics observables from Large Hadron Collider (LHC) and Relativistic Heavy Ion Collider (RHIC), to restore space-time picture of the matter evolution in ultrarelativistic nucleus-nucleus collisions. Will be considered the correlations of particles that are created in such collisions, primarily femtoscopic correlations, directly related to the spatiotemporal scales - the main parameters of the matter evolution. In this connection, the final state interaction method will also be studied, and the concept of the source function is introduced. It will be shown how to use these concepts to investigate in A+A collisions the strong interactions of protons with particles, such that their beams can not be created in accelerators, for instance, strange Lambda-baryons, Cascade-baryons and other hyperons.

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