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Jets and quarks at the NICA collider

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The report presents proposals for studying the interactions of relativistic nuclei in the space of four-dimensional velocities involving quarks and the formation of hadron jets. It is shown that in the energy range of the NICA collider, fractions of neighboring quarks can participate in the interaction of nuclei. In addition, the behavior of four-dimensional hadron jets is similar to that of hadrons. It appears that the hadronization of quark systems in a jet is determined by the dynamics of interaction with the QCD vacuum, which provides hope for studying the properties of this vacuum.

Author: MALAKHOV, Aleksandr (JINR)

Presenter: MALAKHOV, Aleksandr (JINR)

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