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Correlations of kinematic quantities for pions and nucleons in PHSD model

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Time dependencies of the correlations between the velocities of pions and nucleons, as well as between their vorticities are obtained in frames of PHSD model for Au+Au collision at $\sqrt{s_{NN}} = 7.8$ GeV and fixed impact parameter 7.5 fm. The difference in results for these two correlations is explained. It is shown, that the Hubble-like expansion of the fireball gives a significant contribution to the difference of the results. However, for the times around the overlap of the colliding nuclei, the rotation of the surfaces $v_z = 0$ for the considered types of particles is important too.

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