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Interacting color strings approach to describe puzzling long-range azimuthal correlations in p+p data

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In non-central A+A collisions, the measured azimuthal flow of particles is well understood in the paradigm of quark-gluon plasma formation. Namely, the initial spatial anisotropies in the intersection region of the overlap of two nuclei are transferred under large pressure gradients by the almost perfect liquid consisting of strongly coupled quarks and gluons to the momentum asymmetries of final hadrons. In turn, the same explanation is not straightforwardly applicable to the surprising evidence of azimuthal anisotropies recently observed in high-multiplicity p+p collisions at LHC as the produced matter may not be thermalized in such a small droplet. In this report, the new model that does not involve the hydrodynamic phase of the system evolution but can describe the long-range azimuthal correlations will be presented. It is based on the formation in a p+p inelastic interaction a number of colour (quark-gluon) strings that are finite in rapidity. We consider string attraction and fusion as well as interactions of produced particles with string medium. Results on two-particle angular correlations and flow harmonics will be presented.

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Primary author(s) : PROKHOROVA, Daria (Saint Petersburg State University)

Co-author(s) : ANDRONOV, Evgeny (Saint Petersburg State University)

Presenter(s) : PROKHOROVA, Daria (Saint Petersburg State University)

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