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A new look on signals of collective effects in AA and pA at LHC based on Modified Glauber Model.

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We present current status of Modified Glauber Model (MGM) [1], which standard version is widely used for determination of centrality classes, for comparison AA and pA collision with pp data and for search collective effects. In MGM we take into account energy losses which are needed for particle production in each nucleon-nucleon collision. This proposal allowed us to predict total multiplicity in all centrality classes, which were obtained at ALICE experiment [2]. The analysis, which based on this model, of nuclear modification factor in AA, multiplicity density and scaling of hard and soft processes in pA, shows dramatic transformation of our view on processes in heavy ion collisions at LHC.

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[1] G.Feofilov, A.Ivanov, Number of nucleon-nucleon collisions vs energy in modified Glauber calculations // Journal of Physics G CS, 5, (2005) 230-237

[2] T.Drozhdzova, G.Feofilov, V.Kovalenko, A.Seryakov, Geometric properties and charged particles yields behind Glauber model in high energy pA and AA collisions, PoS(QFTHEP 2013)053, 2013.

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