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## Tilted initial state: reasons and consequences

*Friday, 13 September 2013 17:00 (20 minutes)*

The latest experimental data from ALICE@LHC confirm that the hydrodynamic simulations of the ultra-relativistic heavy ion collisions are very successful in describing these reactions. One of the most important elements of such a hydrodynamic model is the initial state for further hydro evolution. Unfortunately at the moment there is no unambiguous model describing the initial states of energetic heavy ion collisions, and thus all initial states in use are either completely phenomenological or contain some phenomenological elements. In my talk I will argue that from very general principles, like linear and angular momentum conservation, we can expect to form tilted and rotating initial state. I will present initial states generated by the Effective String Rope model [1] for RHIC and LHC heavy ion reactions; and compare it with some other models which intend to calculate initial states for hydrodynamic simulations. Then I will address the most important question - what are the consequences of such a tilted and rotating initial state for further evolution of the fireball, and how it can be confirmed/reconstructed from the observables.

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