



Contribution ID: 2

Type: **Poster**

Initial state elliptic flow from instabilities of saturation dynamics

Tuesday 29 September 2015 16:30 (2 hours)

We argue that heavy ion data, taken as a whole, presents scaling patterns (the scaling of v_2 between large and small systems, the scaling of v_2 with multiplicity across energies, the near energy-independence of $v_2(p_T)$, the presence of photon v_2) which look too simple to be described by a non-linear multi-parameter theory such as hydrodynamics.

In particular, we remark that such scaling behavior resembles the approximate Bjorken scaling of parton distribution functions, and could be naturally explained if “somehow”, parton distribution functions acquired an angular dependence.

We speculate on how this could occur, focusing on the stability structure of the GLR (Gribov-Levin Ryskin equation) when its full 2+1 dimensional structure is considered. Via a linearized solution, we isolate a regime in which azimuthal perturbations grow with $\ln(1/x)$.

On behalf of collaboration:

NONE

Author: Prof. TORRIERI, Giorgio (IFGW Unicamp)

Co-author: Mr GAMBINI, Guillermo (IFGW Unicamp)

Presenter: Prof. TORRIERI, Giorgio (IFGW Unicamp)

Session Classification: Poster Session

Track Classification: Initial State Physics and Approach to Equilibrium