



Contribution ID: 56

Type: **not specified**

Colour Reconnection from Soft Gluon Evolution

Wednesday, 12 December 2018 11:30 (20 minutes)

We consider soft gluon evolution of a system of clusters forming the initial state of the cluster hadronization model, in order to constrain colour reconnection models from a perturbative point of view.

We show that this ansatz produces clusters with properties attributed to a colour pre-confined state and find strong evidence for formerly investigated colour reconnection models based on geometric properties.

We also explore the possibility of colour flows giving rise to baryonic clusters and propose simple parametrizations in order to incorporate the effects of soft gluon evolution in an event generator

In this talk I will present ongoing work in the direction of a perturbatively inspired colour reconnection model based on soft gluon evolution striving towards the ultimate goal of implementing a full model in the Monte Carlo Event Generator Herwig.

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Session Classification: WG3