

Colour evolution

Wednesday, 27 February 2019 14:20 (25 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 a Monte Carlo Event Generator.

In the first part of my talk I will explain the underlying theory, while in the second part I will focus on the implementation in the Monte Carlo Event Generator Herwig.

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