Contribution ID: **3** Type: **not specified**

Developing an amplitude level parton shower.

Thursday, 20 December 2018 11:25 (20 minutes)

Perturbative QCD suffers from multitudes of large logarithms, arising from the miscancellation of infra-red poles. These logarithms can cause enhancements of high order terms and spoil perturbative convergence. Historically there has been two disjoint approaches to solving this problem; resummations and parton showers. Nowadays resummations are performed at high accuracy and are rigorously defined, but they are very time consuming. Parton showers are all purpose and can be implemented computationally. However modern showers are still far from a rigorous definition. We present a new algorithm that aims to unify these two approaches.

Primary authors: Mr HOLGUIN, Jack (The University of Manchester); Mr FORSHAW, Jeffrey (The University of Manchester)

Presenter: Mr HOLGUIN, Jack (The University of Manchester)