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Soft Gluons and Non-global Observables

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We present an evolution algorithm for soft gluon exchanges and the resummation of non-global logarithms. Our approach applies to generic hard-scattering processes involving any number of coloured partons and we present a reformulation of the algorithm in such a way as to make the cancellation of infrared divergences explicit. Handling large colour matrices presents the most significant challenge to numerical implementations and we present a means to expand systematically about the leading colour approximation. We present first numerical results obtained with a framework which can cover a large class of such evolution algorithms.

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