“Soft-/rapidity- anomalous dimension correspondence”

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We present the overview of the modern factorization theorems with the emphasis on the structure of soft factors. In particular, we discuss recently discovered correspondence between soft factors for multi-particle production and for multi-parton scattering. The correspondence is valid to all orders of perturbation theory and provides a proof of rapidity renormalization procedure for multi-parton scattering soft factors (including the transverse momentum dependent (TMD) soft factor as a special case). It also results to an exact relation between the rapidity anomalous dimension and the well-known soft anomalous dimension. The three-loop rapidity anomalous dimensions for TMD and a general multi-parton scattering are derived.