

Resummation and zero momentum modes.

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We revisit Touschek's resummation procedure for QED and highlight the possibility of zero momentum modes, insofar neglected in the passage from the discrete to the continuum, but possible under special boundary conditions. We show how to separate and extract the zero momentum mode in soft photon emission both in the relativistic and non-relativistic limit. An ansatz is presented to extend the procedure to QCD, and the possibility that this mode manifests itself in the forward peak in elastic pp scattering. A preliminary phenomenology is discussed.

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