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## The Improved Opacity Expansion formalism

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So far, analytical jet quenching formalisms have either assumed that modifications to the jets' structure are dominated by a few hard in-medium scatterings or by multiple soft interactions. However, it is known that neither of these regimes corresponds to any currently available experimental set-up, and thus bridging the gap between these limits under a single framework is a crucial step towards a complete description of jet quenching. In this talk we discuss a novel strategy, dubbed the Improved Opacity Expansion (IOE), which provides a self-consistent way of interpolating between the single hard and multiple soft regimes for dense media populated by a few hard scattering centers. We compute the momentum broadening distribution and the medium induced radiation rate in the IOE, showing that the two previous limits are recovered. As an application, we show how the IOE allows to take into account Moliere scattering in the computation of jet substructure observables

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