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Turning on the Charm

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I will argue that in heavy-ion collisions the observed strong quenching of heavy quark flavors at intermediate momenta has a sizable contribution from binary scatterings in the quark-gluon plasma. To arrive at this conclusion, I go beyond existing approaches in two aspects: (i) by calculating the collision probability beyond leading-log accuracy, taking into account the momentum dependence of the strong coupling, and (ii) using this probability as the basis of a consistent transport description of heavy flavors, formulating their evolution as a Markov process.

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