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# Heavy quark diffusion coefficient from lattice QCD

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Heavy quarks placed within a hot deconfined medium undergo Brownian motion. At low momenta, the diffusion in momentum space is characterized by a transport coefficient $\kappa$, which needs to be calculated non-perturbatively for a strongly interacting plasma. We have calculated $\kappa$ for the charm and bottom quarks in a gluonic plasma, using lattice gauge theory and an expansion in the inverse of
the heavy quark mass. The results for $\kappa$ in the temperature range of interest for heavy ion collision experiments will be presented, and their phenomenological implication discussed.

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