

## Heavy quark diffusion from lattice QCD spectral functions

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We analyze the low energy part of charmonium spectral functions on large lattices close to the continuum limit in the temperature region  $1.5 < T/T_c < 3$  as well as for  $T \simeq 0.75T_c$ . We present evidence for the existence of a transport peak above  $T_c$  and its absence below  $T_c$ . The heavy quark diffusion constant is then estimated using the Kubo formula. As part of the calculation we also determine the temperature dependence of the signature for the charmonium bound state in the spectral function and discuss the fate of charmonium states in the hot medium.

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