

Heavy quark diffusion coefficient from lattice QCD

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We show the heavy quark diffusion coefficient calculated on the lattice. The coefficient is obtained from the color-electric correlators via Kubo formula. The correlators are measured at $1.5T_c$ on different large isotropic lattices in the quenched approximation under gradient flow. After continuum extrapolation we also extrapolate the continuum correlators back to zero flow time. The extrapolated correlators are then fitted using theoretically motivated model spectral functions. By taking the slope of the spectral function at vanishing frequency we obtain the heavy quark diffusion coefficient. In this talk we will also compare our results with those from other lattice studies.

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