

Abstract Submitted
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The Imaginary Part of the Heavy-quark Potential From Real-time Yang-Mills Dynamics¹ BABAK SALEHI KASMAEI, Kent State University, KIRILL BOGUSLAVSKI, Institute for Theoretical Physics, Technische Universität Wien, MICHAEL STRICKLAND, Kent State University — The imaginary part of the heavy-quark potential is related to the total in-medium decay width of the quarkonium states. We extract the imaginary part of the heavy-quark potential using classical-statistical lattice simulations of the real-time SU(2) and SU(3) Yang-Mills dynamics in classical thermal equilibrium. We compare with the results from the continuum limit, lattice-regularized hard-classical-loop (HCL) perturbation theory and also previous nonperturbative calculations. We also discuss the relation of our results to the heavy-quark diffusion coefficient.

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