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Abstract for an Invited Paper
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Bottomonium suppression in an open quantum system using the quantum trajectories method¹

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I present results of recent numerical solution of the Lindblad equation describing the Brownian motion of a Coulombic heavy quark-antiquark pair in a strongly coupled quark-gluon plasma. The method makes use of a highly efficient Monte Carlo wave-function (quantum trajectory) algorithm. The Lindblad equation and associated collapse operators have been derived in the framework of pNRQCD and fully takes into account the quantum and non-Abelian nature of the system. The hydrodynamics of the plasma is realistically implemented using a 3+1D dissipative hydrodynamics code. As I will demonstrate, our final results, which include late-time feed down of excited states, agree well with the available data from LHC 5.02 TeV PbPb collisions.

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