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Event-By-Event Fluctuations of HBT Radii and the QGP Shear Viscosity CHRISTOPHER PLUMBERG, ULRICH HEINZ, The Ohio State University — One of the major lessons from the field of heavy-ion physics in the past several years has been the significance of the role played by event-by-event fluctuations in the evolution of a heavy-ion collision. Their effects on many observables (e.g., particle multiplicities, anisotropic flows, etc.) Have already been studied systematically, and many of the most interesting properties of their event-by-event distributions are well known. In this talk, i will discuss the motivation for extending the successes of this event-by-event paradigm to include the Hanbury-Brown—Twiss (HBT) radii derived from intensity interferometry. In particular, I will present a connection between the variance of an event-by-event HBT distribution and the value of the specific shear viscosity, eta/s, in the quark-gluon plasma.

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