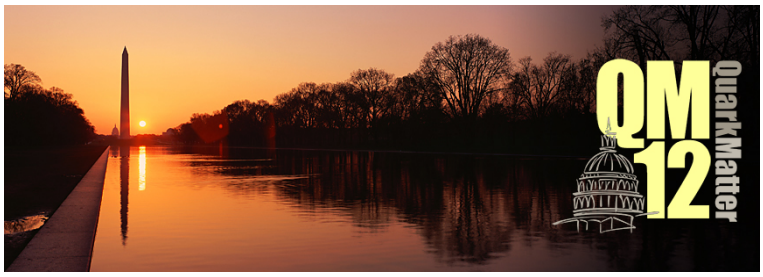

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Initial state fluctuations and higher harmonic flow in heavy-ion collisions

Wednesday, 15 August 2012 08:50 (20 minutes)

We present recent developments in describing anisotropic flow in heavy-ion collisions at the Relativistic Heavy-Ion Collider (RHIC) at Brookhaven National Laboratory and the Large Hadron Collider (LHC) at CERN with a relativistic 3+1 dimensional viscous event-by-event hydrodynamic simulation.
We present results for elliptic, triangular and higher harmonic flow coefficients, including comparisons to first experimental data as well as predictions. We demonstrate the great potential of a systematic study of higher harmonic and directed flow to pin down the shear viscosity to entropy density ratio of the created quark gluon plasma and the details of the initial state.

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