

Abstract Submitted
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Initial eccentricity fluctuations and their relation to higher-order flow harmonics¹ ROY LACEY — Considerable effort is currently being devoted to the quantitative extraction of the specific shear viscosity η/s , from flow measurements made at the Relativistic Heavy Ion Collider (RHIC). The initial eccentricity of the collision zone, as well as its associated fluctuations, have proven to be an essential ingredient for such extractions. Experimental measurements of the eccentricity have not been possible to date and theoretical eccentricity estimates give results which differ by as much as 25-30% – a difference which leads to an approximate factor of two uncertainty in the extracted η/s value. I will discuss the possible utility of higher-order flow measurements (v_n) as a constraint for distinguishing between the primary models used for eccentricity estimates. Such a constraint could be important for a more precise determination of the specific shear viscosity.

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