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## Exploring heat conductivity at RHIC Beam Energy Scan

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Exploring the transport coefficients of the QGP is one of the main goals in relativistic heavy ion collisions. By employing the Bayesian analysis method, the temperature dependent shear and bulk viscosity of QGP medium has been extracted. However, the heat conductivity of the QGP has not been fully explored. Using single-shoot MUSIC hydrodynamics with smooth initial condition, ref.[1] found that turning on the heat conductivity of the QGP tends to transport net baryon number towards mid-rapidity.

In this talk [2], we study the heat conductivity using event-by-event hydrodynamic simulations (iEBE-MUSIC) with the dynamical initial conditions. We will show that some of the three-particle flow correlations are sensitive to the heat conductivity of QGP, which can be used to constrain the heat conductivity at RHIC Beam Energy Scan.

[1]Gabriel S. Denicol, Charles Gale, Sangyong Jeon, Akihiko Monnai, Björn Schenke, and Chun Shen, Phys. Rev. C 98, 034916 (2018).

[2]Shujun Zhao, Chun Shen, Huichao Song, paper in preparation.

### Category

Theory

### Collaboration (if applicable)

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