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Resurgence and Hydrodynamics in Gauss Bonet Holography

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Due to a correspondence between Hydrodynamics and Gravity, one can study a fluid-like Quark-Gluon Plasma (QGP) at infinite coupling through perturbations of a boosted blackbrane solution in General Relativity.

In previous work the late time expansion of Bjorken flow (1-dimensional, boost-invariant flow as present during Heavy Ion collisions) was computed in a gradient expansion to high orders and the technique of Resurgence was used to understand the emergence of non-hydrodynamic modes in the structure of large order perturbation.

As a first step towards understanding finite coupling corrections to the non-hydrodynamic behavior of the QGP, we will extend this method in Gauss-Bonnet Gravity, a higher derivative extension of Einstein gravity.

Primary author: Mr MEIRING, Ben (University of Oxford)

Presenter: Mr MEIRING, Ben (University of Oxford)

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