Contribution ID: **5**   Type: **not specified**

Thermodynamics and hydrodynamics in the holographic Stückelberg model

Monday, 13 March 2023 15:40 (20 minutes)

We study the thermodynamics and the anomalous transport properties of a massive U(1) gauge holographic model in 5 dimensions with pure gauge and mixed gauge-gravitational Chern-Simons terms]. The thermodynamics is studied by considering an expansion in the conformal dimension of the current associated to the gauge field, and the transport is studied by using Kubo formulae. This study is done by including the full backreaction of the gauge field on the metric tensor, which has allowed us to explore, in addition to the chiral magnetic conductivity, the vortical and energy transport sector in the anomalous conductivities. We find that all the correlators depend on the mass of the gauge field, and some correlators which are completely absent in the massless case, get a non-vanishing value in the massive theory.

Presenter: MEGIAS, Eugenio (University of Granada)

Session Classification: Holography for chiral effects - I