

# Holographic perspectives on chiral transport

Trento, 13– 17 March 2023

Chiral anomalies can lead to new transport phenomena such as the chiral magnetic and the chiral vortical effects. Due to the universality of anomalies these effects play an important role in many different areas ranging from the physics of heavy ion collisions to condensed matter systems such as Weyl- and Dirac metals. From the very beginning the theory of anomaly induced transport has received important inputs from holography (the “gauge/gravity” duality). In particular in view of the ongoing search for anomaly induced effects in heavy ion collisions it is necessary to deepen our theoretical understanding, develop new models and arrive at quantitative predictions. Holography is a very powerful tool that holds the promise to be able to successfully address all these issues. The workshop shall gather leading experts to discuss the status quo and foster new ideas and collaborations.

## Organizers

Karl Landsteiner (IFT\_UAM/CSIC Madrid), Matthias Kaminski (University of Alabama), Umut Gursoy (Utrecht University), Dmitri Kharzeev (Stony Brook University)

## Speakers

Navid Abbasi (Univ. Lanzhou), Martin Ammon (Univ. Jena), Daniel Arean (Univ. Autonoma Madrid), Francesco Beccattini (INFN Florence), Daniel Brattan (Ecole Polytechnique Paris), Casey Cartwright (Utrecht Univ.), Arpit Das (Univ. Durham), Alexandru Dobrin (ISS Bucharest), Wojciech Florkowski (Jagellonian Univ. Krakow), Kenji Fukushima (Univ. Tokyo), Sašo Gozdanov (Univ. Ljubljana), Sebastian Grieninger (Stony Brook Univ.), Juan Pablo Hernandez (Perimeter Institute), Nabil Iqbal (Durham Univ.), Matti Jarvinen (APCTP Pohang), Javier Molina (Univ. Murcia), Francesco Nitti (APC Paris), Jorge Noronha (Univ. Illinois), Jacquelyn Noronha-Hostler (Univ. Illinois), Andrey Sadofyev (Univ. Santiago de Compostela), Misha Stephanov (Illinois Univ. Chacago), Wilke van der Schee (CERN), Gang Wang (UCLA), Amos Yarom (Technion Haifa)

## Director of the ECT\*: Professor Gert Aarts

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