

# **Holographic perspectives on chiral transport and spin dynamics**

## **Report of Contributions**

Contribution ID: 5

Type: **not specified**

## **Welcome message from the ECT\* Director**

*Tuesday 25 March 2025 09:50 (10 minutes)*

**Presenter:** VAN KOLCK, Ubirajara (IJCLab Orsay & University of Arizona)

Contribution ID: 6

Type: **not specified**

## **Review of holography and chiral transport**

*Monday 24 March 2025 14:00 (20 minutes)*

**Presenter:** LANDSTEINER, Karl (IFT UAM/CSIC Madrid)

**Session Classification:** Session I

Contribution ID: 7

Type: **not specified**

# Thermodynamics with Spin Chemical Potential

*Monday 24 March 2025 14:20 (20 minutes)*

**Presenter:** FUKUSHIMA, Kenji (The University of Tokyo)

**Session Classification:** Session I

Contribution ID: 9

Type: **not specified**

## **Vortical waves in a chiral fluid**

*Monday 24 March 2025 15:30 (20 minutes)*

**Presenter:** AMBRUŞ, Victor E. (West University of Timișoara)

**Session Classification:** Session II

Contribution ID: **10**

Type: **not specified**

## **Chiral Vortical Instability**

*Monday 24 March 2025 15:50 (20 minutes)*

**Presenter:** SADOFYEV, Andrey (IGFAE)

**Session Classification:** Session II

Contribution ID: **11**

Type: **not specified**

## Coffee break

Contribution ID: 12

Type: **not specified**

## Discussion

**Session Classification:** Session III



Contribution ID: 13

Type: **not specified**

## Discussion

*Monday 24 March 2025 16:10 (20 minutes)*

**Session Classification:** Session II

Contribution ID: 14

Type: **not specified**

## Discussion

*Monday 24 March 2025 14:40 (20 minutes)*

**Session Classification:** Session I

Contribution ID: 15

Type: **not specified**

# **Spin polarization and alignment measurements at STAR**

*Tuesday 25 March 2025 10:00 (20 minutes)*

**Presenter:** TANG, Aihong (Brookhaven National Laboratory)

**Session Classification:** Session III

Contribution ID: 16

Type: **not specified**

## **Recent theoretical results on spin polarization in heavy ion collisions**

*Tuesday 25 March 2025 10:20 (20 minutes)*

**Presenter:** BECATTINI, Francesco (Università & INFN Firenze)

**Session Classification:** Session III

Contribution ID: 17

Type: **not specified**

## Discussion

*Tuesday 25 March 2025 10:40 (20 minutes)*

**Session Classification:** Session III

Contribution ID: **18**

Type: **not specified**

## **Gluon polarization contribution to the spin alignment of vector mesons from holography**

*Tuesday 25 March 2025 11:30 (20 minutes)*

**Presenter:** HUANG, Mei (UCAS)

**Session Classification:** Session IV

Contribution ID: 19

Type: **not specified**

## **Spin polarization in strongly coupled fluid**

*Tuesday 25 March 2025 11:50 (20 minutes)*

**Presenter:** LIN, Shu (Sun Yat-sen University)

**Session Classification:** Session IV

Contribution ID: 20

Type: **not specified**

## Discussion

*Tuesday 25 March 2025 12:10 (20 minutes)*

**Session Classification:** Session IV



Contribution ID: **21**

Type: **not specified**

**TBA**

*Tuesday 25 March 2025 15:50 (20 minutes)*

**Presenter:** GRIENINGER, Sebastian

**Session Classification:** Session V

Contribution ID: 22

Type: **not specified**

## **Chiral Magnetic Effect with time dependent magnetic field in holography**

*Tuesday 25 March 2025 15:30 (20 minutes)*

**Presenter:** MORALES TEJERA, Sergio

**Session Classification:** Session V

Contribution ID: 23

Type: **not specified**

## Long lived quasinormal modes

*Wednesday 26 March 2025 11:30 (20 minutes)*

**Presenter:** YAROM, Amos (Technion)

**Session Classification:** Session VIII

Contribution ID: 24

Type: **not specified**

## **Chiral anomaly from anomalous spin hydrodynamics**

*Wednesday 26 March 2025 10:00 (20 minutes)*

**Presenter:** ARMAS, Jay

**Session Classification:** Session VII

Contribution ID: 25

Type: **not specified**

## **Relaxed hydrodynamics and anomalies (an overview)**

*Thursday 27 March 2025 11:30 (20 minutes)*

**Presenter:** AMORETTI, Andrea (University of Genoa)

**Session Classification:** Session XI

Contribution ID: 26

Type: **not specified**

## **Spectra of correlation functions in kinetic theory: the relaxation time approximation, the BBGKY hierarchy and quantum chaos**

*Wednesday 26 March 2025 14:00 (20 minutes)*

**Presenter:** GROZDANOV, Sašo (University of Edinburgh and University of Ljubljana)

**Session Classification:** Session IX

Contribution ID: 28

Type: **not specified**

# Charge Transport in Magnetized Plasma from First Principles

*Friday 28 March 2025 10:00 (20 minutes)*

**Presenter:** SHOVKOVY, Igor (Arizona State University)

**Session Classification:** Session XIV

Contribution ID: 29

Type: **not specified**

## **Instantons and sphalerons in a magnetic field**

*Friday 28 March 2025 10:20 (20 minutes)*

**Presenter:** BASAR, Gokce (University of North Carolina, Chapel Hill)

**Session Classification:** Session XIV



Contribution ID: 30

Type: **not specified**

## **Hydrodynamic fluctuations and topological susceptibility in chiral MHD**

*Wednesday 26 March 2025 11:50 (20 minutes)*

**Presenter:** DAS, Arpit (University of Edinburgh)

**Session Classification:** Session VIII

Contribution ID: **31**

Type: **not specified**

## **Chiral anomalies and hydrodynamics**

*Wednesday 26 March 2025 10:20 (20 minutes)*

**Presenter:** HERNANDEZ, Juan (Vrije Universiteit Brussel)

**Session Classification:** Session VII

Contribution ID: 32

Type: **not specified**

## **Relativistic Guiding-Center Motion: Action, Kinetic Theory, and Hydrodynamics**

*Wednesday 26 March 2025 14:20 (20 minutes)*

**Presenter:** STEPHANOV, Mikhail

**Session Classification:** Session IX

Contribution ID: 33

Type: **not specified**

## **Is holographic quark-gluon plasma homogeneous?**

*Thursday 27 March 2025 14:00 (20 minutes)*

**Presenter:** JOKELA, Niko (Helsinki Institute of Physics)

**Session Classification:** Session XII

Contribution ID: 34

Type: **not specified**

## **Consequences of anomaly in holographic QCD**

*Thursday 27 March 2025 14:20 (20 minutes)*

**Presenter:** JARVINEN, Matti (APCTP, Pohang)

**Session Classification:** Session XII

Contribution ID: 35

Type: **not specified**

## **Magnetic fields in heavy ion collisions (?)**

*Friday 28 March 2025 11:50 (20 minutes)*

**Presenter:** VAN DER SCHEE, Wilke (CERN)

**Session Classification:** Session XV

Contribution ID: 36

Type: **not specified**

## **Holographic driven steady states**

*Friday 28 March 2025 11:30 (20 minutes)*

**Presenter:** BRATTAN, Daniel (CPhT, Ecole Polytechnique)

**Session Classification:** Session XV

Contribution ID: 37

Type: **not specified**

## **Scaling Corrections and Fluctuations in Causal Theories of Diffusion**

*Tuesday 25 March 2025 14:00 (20 minutes)*

**Presenter:** ABBASI, Navid

**Session Classification:** Session VI



Contribution ID: **38**

Type: **not specified**

## **Anomalous transport without triangle anomaly**

*Thursday 27 March 2025 15:50 (20 minutes)*

**Presenter:** POOVUTTIKUL, Napat (Chulalongkorn University)

**Session Classification:** Session XIII

Contribution ID: 39

Type: **not specified**

## **DC transport in disordered black holes**

*Wednesday 26 March 2025 15:50 (20 minutes)*

**Presenter:** AREAN FRAGA, Daniel

**Session Classification:** Session X

Contribution ID: 40

Type: **not specified**

## **Relaxation dynamics of quasi-hydrodynamic mode**

*Thursday 27 March 2025 11:50 (20 minutes)*

**Presenter:** HONGO, Masaru (Niigata University)

**Session Classification:** Session XI

Contribution ID: 41

Type: **not specified**

## Neutrino transport in holography

*Wednesday 26 March 2025 15:30 (20 minutes)*

**Presenter:** PRÉAU, Edwan (ITP - Utrecht University)

**Session Classification:** Session X

Contribution ID: 42

Type: **not specified**

## **Dissipative electrically driven fluids**

*Tuesday 25 March 2025 14:20 (20 minutes)*

**Presenter:** RONGEN, Jonas (University of Genoa)

**Session Classification:** Session VI

Contribution ID: 43

Type: **not specified**

## **Search for the Chiral Magnetic Effect from RHIC Beam Energy Scan-II data with STAR**

*Tuesday 25 March 2025 16:10 (20 minutes)*

Special on recent CME results from Star (ONLINE)

**Presenter:** XU, Zhiwan (LANL)

**Session Classification:** Session V

Contribution ID: 44

Type: **not specified**

## Discussion

*Wednesday 26 March 2025 12:10 (20 minutes)*

**Session Classification:** Session VIII

Contribution ID: 45

Type: **not specified**

## Discussion

*Wednesday 26 March 2025 10:40 (20 minutes)*

**Session Classification:** Session VII



Contribution ID: 46

Type: **not specified**

## Discussion

*Tuesday 25 March 2025 14:40 (20 minutes)*

**Session Classification:** Session VI

Contribution ID: 47

Type: **not specified**

## Discussion

*Wednesday 26 March 2025 14:40 (20 minutes)*

**Session Classification:** Session IX

Contribution ID: 48

Type: **not specified**

## Discussion

*Wednesday 26 March 2025 16:10 (20 minutes)*

**Session Classification:** Session X

Contribution ID: 49

Type: **not specified**

## Discussion

*Thursday 27 March 2025 12:10 (20 minutes)*

**Session Classification:** Session XI

Contribution ID: 51

Type: **not specified**

## Discussion

*Friday 28 March 2025 10:40 (20 minutes)*

**Session Classification:** Session XIV

Contribution ID: 52

Type: **not specified**

## Discussion

*Friday 28 March 2025 12:10 (20 minutes)*

**Session Classification:** Session XV

Contribution ID: 53

Type: **not specified**

## Discussion

*Thursday 27 March 2025 16:10 (20 minutes)*

**Session Classification:** Session XIII

Contribution ID: 54

Type: **not specified**

## Discussion

*Thursday 27 March 2025 14:40 (20 minutes)*

**Session Classification:** Session XII



Contribution ID: 56

Type: **not specified**

## **The chiral torsional anomaly and the Nieh-Yan invariant with and without boundaries**

*Thursday 27 March 2025 15:30 (20 minutes)*

**Presenter:** MATTHAIKAKIS, Ioannis (University of Southampton)

**Session Classification:** Session XIII