QCD Workshop on Chirality, Vorticity and Magnetic Field in Heavy Ion Collisions

March 27-30, 2017

Physics and Astronomy Building (PAB) 2-434

March 27, 2017

Chair  Yugang Ma

9:00 – 9:15  Welcome

9:15 – 10:00  Jinfeng Liao  Anomalous Chiral Transport in Heavy Ion Collisions: Challenges and Opportunities

10:00 – 10:30  Yuji Hirono  Properties of Chiral Magnetohydrodynamics and its Application to Heavy-Ion Collisions

10:30 – 11:00  Coffee Break

Chair  Zhongbo Kang

11:00 – 11:30  Qun Wang  Derivation of Covariant Chiral Kinetic Equation with Wigner Function

11:30 – 12:00  Pavel Kovtun  Relativistic Magnetohydrodynamics

12:00 – 12:30  Ajit Srivastava  Magnetohydrodynamics Simulations, Vortices and Flow Fluctuations in Relativistic Heavy-Ion Collisions

12:30 – 2:00  Lunch

Chair  Jiangyong Jia

2:00 – 2:30  Mei Huang  Quark Matter under Strong Magnetic Field

2:30 – 3:00  Shiyong Li  Transport Properties of QGP in the Presence of Magnetic Field

3:00 – 3:30  Koichi Hattori  Transport Phenomena in Strong Magnetic Fields

3:30 – 4:00  Coffee Break

Chair  Jaap Onderwaater

4:00 – 4:30  Kirill Tuchin  Taming Instability of Magnetic Field in Chiral Medium

4:30 – 5:00  Di-Lun Yang  Side-Jumps and Collisions in Chiral Kinetic Theory from Quantum Field Theories

5:00 – 5:30  Xiaoliang Xia  Structure of Magnetic and Vorticity Fields in HI Collisions
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Chair Zhangbu Xu

9:00 – 9:45 Wei Li CMS Results on Searches of CME/CMW
9:45 – 10:30 Gang Wang STAR Results on Searches of CME/CMW/CVE with Identified Particles

10:30 – 11:00 Coffee Break

Chair Dmitri Kharzeev

11:00 – 11:30 Jaap Onderwaater Chiral Magnetic Effect Studies at ALICE Using Event Shape Engineering
11:30 – 12:00 Prithwish Tribedy Search for the CME in U+U, Au+Au and p+Au Collisions with STAR
12:00 – 12:30 Jie Zhao Chiral magnetic effect search in p+Au, d+Au and Au+Au collisions at RHIC

12:30 – 2:00 Lunch

Chair Kirill Tuchin

2:00 – 2:30 Jiangyong Jia Recent Development in Understanding Collectivity in Small Systems
2:30 – 3:00 Shi Pu Chiral Kinetic Theory with Bjorken Expansion
3:00 – 3:30 Srimoyee Sen Chiral Shock Wave
3:30 – 4:00 Coffee Break

Chair Jinhui Chen

4:00 – 4:30 Mark Mace Progress in Understanding Anomaly Induced Transport from Real-time Lattice Simulations
4:30 – 5:00 Sho Ozaki Band Structure of Photons in ‘Axion Crystals’
5:00 – 5:30 Aldo Cotrone Theta Angle in Holographic QCD

6:00 – 9:00 Workshop Dinner @ UCLA Faculty Center
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Chair Mei Huang

9:00 – 9:45 Dmitri Kharzeev  What Next – Theoretical Perspective
9:45 – 10:15 Yi Yin  Wave Turbulence in Chiral Fluid
10:15 – 11:00 Coffee Break

Chair Pavel Kovtun

11:00 – 11:30 Francesco Becattini  Some Theoretical and Phenomenological Remarks about Polarization and Vorticity
11:30 – 12:00 Nakafumi Niida  Global Polarization of Lambda Hyperons in Au+Au Collisions at STAR
12:00 – 12:30 Maxim Konyushikhin  Vorticity Studies at ALICE with Lambda Hyperons
12:30 – 2:00 Lunch

Chair Jinfeng Liao

2:00 – 2:30 Andrey Sadofyev  Chirality and Macroscopic Helicities
2:30 – 3:00 Hui Li  Study of Lambda Polarization and Vorticity Field with AMPT Model
3:00 – 3:30 Matto Buzzegoli  Non-dissipative Vortious Hydrodynamic Coefficients For Stress-Energy Tensor and Axial Current
3:30 – 4:00 Coffee Break

Chair Francesco Becattini

4:00 – 4:30 LongGang Pang  Identifying QCD Transition Using Deep Learning
4:30 – 5:00 Huan Zhong Huang  Experimental Perspective
March 30, 2017

Knudsen 5-137

Discussion of Experimental Efforts

Possible excursion to Getty Museum for some participants