

Workshop on Partonic and Hadronic Transport Approaches for Relativistic Heavy Ion Collisions

Saturday, 11 May 2019 - Sunday, 12 May 2019

Hi Chance (Dalian) Science & Technology Center, 海创（大连）科技
交流中心。

Book of Abstracts

Contents

Opening and welcome	1
50 years scientific career and AMPT history	1
Hadrons in medium	1
Probing QCD Phase Diagram from Coalescence Production of Light Nuclei in Heavy-Ion Collisions	1
Large v_2 with small cross section	1
Multi-phase transport model predictions of isobaric collisions with nuclear structures from density functional theory	1
Thermal behaviors of light-flavor mesons at low temperatures	1
Hadronization of QGP during the first-order phase transition	1
Update of a Multi-Phase Transport Model with Modern Parton Distribution Functions and Nuclear Shadowing	2
Improvement for the open charm production in a multi-phase transport model	2
Machine Learning for Relativistic Heavy Ion Collisions	2
Hydrodynamic fluctuations in integrated dynamical model	2
Multi-pion BE correlations for the granular source with coherent pion-emission droplets	2
Hydrodynamic collectivity proton + proton collisions at 13 TeV	2
Spin in kinetic theory	2
Partonic model simulations of vorticity and spin polarization in heavy-ion collisions	2
QCD phase structure within FRG and AMPT	3
Flow and centrality fluctuations in PbPb collisions	3
Chiral crossover and phase transition in (2+1)-flavor QCD	3
Search for the QCD critical point in the Beam Energy Scan at RHIC: Status and Prospect	3
Transport simulations of intermediate-energy heavy-ion collisions	3

Hydrodynamic quantum molecular dynamics approach in JAM	3
Two-particle angular correlations in heavy ion collisions from a multiphase transport . .	3
The effect of single particle momentum-space correlation in two-pion HBT analysis . . .	4
Exploring anti-Li4 by momentum correlation function of anti-p and anti-He3	4
Simulating chiral anomalous effects with AMPT	4
Summary of recent AMPT developments and future directions	4

Session-1 / 12

Opening and welcome

Session-1 / 13

50 years scientific career and AMPT history

Author: Ko Che Ming¹

¹ *Texas A&M University*

Session-1 / 14

Hadrons in medium

Session-1 / 15

Probing QCD Phase Diagram from Coalescence Production of Light Nuclei in Heavy-Ion Collisions

Session-2 / 16

Large v_2 with small cross section

Session-2 / 17

Multi-phase transport model predictions of isobaric collisions with nuclear structures from density functional theory

Session-2 / 18

Thermal behaviors of light-flavor mesons at low temperatures

Session-3 / 19

Hadronization of QGP during the first-order phase transition

Session-3 / 20

Update of a Multi-Phase Transport Model with Modern Parton Distribution Functions and Nuclear Shadowing

Session-3 / 21

Improvement for the open charm production in a multi-phase transport model

Session-4 / 22

Machine Learning for Relativistic Heavy Ion Collisions

Session-4 / 23

Hydrodynamic fluctuations in integrated dynamical model

Session-4 / 24

Multi-pion BE correlations for the granular source with coherent pion-emission droplets

Session-4 / 25

Hydrodynamic collectivity proton + proton collisions at 13 TeV

Session-5 / 26

Spin in kinetic theory

Session-5 / 27

Partonic model simulations of vorticity and spin polarization in heavy-ion collisions

Session-5 / 28

QCD phase structure within FRG and AMPT

Session-6 / 29

Flow and centrality fluctuations in PbPb collisions

Session-6 / 30

Chiral crossover and phase transition in (2+1)-flavor QCD

Session-6 / 31

Search for the QCD critical point in the Beam Energy Scan at RHIC: Status and Prospect

Session-6 / 32

Transport simulations of intermediate-energy heavy-ion collisions

session-7 / 33

Hydrodynamic quantum molecular dynamics approach in JAM

session-7 / 34

Two-particle angular correlations in heavy ion collisions from a multiphase transport

session-7 / 35

The effect of single particle momentum-space correlation in two-pion HBT analysis

session-7 / 36

Exploring anti-Li4 by momentum correlation function of anti-p and anti-He3

session-8 / 37

Simulating chiral anomalous effects with AMPT

session-8 / 38

Summary of recent AMPT developments and future directions