

New developments in studies of the QCD phase diagram

Report of Contributions

Contribution ID: 1

Type: **not specified**

Experimental Study of QCD Phase Diagram in Heavy-ion Collisions at RHIC

Monday 9 September 2024 10:00 (40 minutes)

Presenter: LUO, Xiaofeng (Central China Normal University)

Session Classification: Critical point

Contribution ID: 2

Type: **not specified**

Registration

Monday 9 September 2024 09:00 (30 minutes)

Contribution ID: 3

Type: **not specified**

Locating the critical end point and the phase boundary of QCD from first principle QCD

Monday 9 September 2024 11:10 (40 minutes)

Presenter: PAWLOWSKI, Jan M. (University of Heidelberg)

Session Classification: Critical point

Contribution ID: 4

Type: **not specified**

QCD critical point in the era of BES II

Monday 9 September 2024 11:50 (40 minutes)

Presenter: FU, Wei-jie

Session Classification: Critical point

Contribution ID: 5

Type: **not specified**

Lee-Yang zeros and the QCD phase diagram

Monday 9 September 2024 14:50 (40 minutes)

Presenter: SCHMIDT, Christian (Bielefeld University)

Session Classification: Critical point

Contribution ID: 6

Type: **not specified**

QCD critical point, fluctuations and hydrodynamics

Monday 9 September 2024 15:30 (40 minutes)

Presenter: STEPHANOV, Mikhail

Session Classification: Critical point

Contribution ID: 7

Type: **not specified**

Strangeness neutrality and QCD phase structure from functional renormalization group

Monday 9 September 2024 16:40 (30 minutes)

Presenter: WEN, Rui (University of Chinese Academy of Sciences)

Session Classification: Critical point

Contribution ID: 8

Type: **not specified**

Exploring Baryon Fluctuations with Coulomb Gauge QCD

Monday 9 September 2024 17:10 (30 minutes)

Presenter: SHUKLA, Udit (University of Wroclaw)

Session Classification: Critical point

Contribution ID: 9

Type: **not specified**

Dense QCD matter constrained by astrophysical observation

Tuesday 10 September 2024 09:00 (40 minutes)

Presenter: FUKUSHIMA, Kenji (The University of Tokyo)

Session Classification: QCD at high density

Contribution ID: **10**

Type: **not specified**

Reaching conformality in neutron stars

Tuesday 10 September 2024 09:40 (40 minutes)

Presenter: MARCZENKO, Michał (University of Wrocław)

Session Classification: QCD at high density

Contribution ID: 11

Type: **not specified**

Finite density QCD as an inverse problem

Tuesday 10 September 2024 10:50 (40 minutes)

Presenter: DI RENZO, Francesco (Università di Parma and INFN)

Session Classification: QCD at high density

Contribution ID: 12

Type: **not specified**

What is the IR Phase Really About?

Tuesday 10 September 2024 11:30 (40 minutes)

Presenter: HORVATH, Ivan (Nuclear Physics Institute, Řež-Prague & University of Kentucky)

Session Classification: Chiral Phase Transition

Contribution ID: 13

Type: **not specified**

Chiral symmetry breaking in hot QCD

Tuesday 10 September 2024 14:30 (40 minutes)

Presenter: KOVACS, Tamas (Eotvos Lorand University, Budapest)

Session Classification: Chiral Phase Transition

Contribution ID: 14

Type: **not specified**

Microscopic Encoding of Macroscopic Universality: Scaling properties of Dirac Eigenspectra near QCD Chiral Phase Transition

Tuesday 10 September 2024 15:10 (40 minutes)

Presenter: HUANG, Wei-Ping (Central China Normal University)

Session Classification: Chiral Phase Transition

Contribution ID: 15

Type: **not specified**

Towards a parameter-free determination of QCD critical exponents and chiral phase transition temperature

Tuesday 10 September 2024 16:20 (30 minutes)

Presenter: MITRA, Sabarnya (Bielefeld University)

Session Classification: Chiral Phase Transition

Contribution ID: 16

Type: **not specified**

Quark pairing and the strong coupled quark-gluon plasma

Tuesday 10 September 2024 16:50 (30 minutes)

Presenter: LU, Yi (Peking University)

Session Classification: Chiral Phase Transition

Contribution ID: 17

Type: **not specified**

A toy model for chiral symmetry restoration

Presenter: PISARSKI, Robert (Brookhaven National Laboratory)

Contribution ID: **18**

Type: **not specified**

Veneziano's ghost and the chiral phase transition

Wednesday 11 September 2024 09:00 (40 minutes)

Presenter: PISARSKI, Robert (Brookhaven National Laboratory)

Session Classification: Chiral Phase Transition

Contribution ID: 19

Type: **not specified**

The chiral phase transition in many flavour QCD

Wednesday 11 September 2024 09:40 (40 minutes)

Presenter: PHILIPSEN, Owe

Session Classification: Chiral Phase Transition

Contribution ID: 20

Type: **not specified**

Finite temperature QCD explored with chiral fermions

Wednesday 11 September 2024 10:50 (40 minutes)

Presenter: AOKI, Yasumichi (RIKEN)

Session Classification: QCD Thermodyanmics

Contribution ID: 21

Type: **not specified**

Finite temperature QCD from lattice simulations with overlap fermions

Wednesday 11 September 2024 11:30 (40 minutes)

Presenter: KOTOV, Andrey

Session Classification: QCD Thermodyanmics

Contribution ID: 22

Type: **not specified**

Three-flavour QCD phase transition with Mobius domain-wall fermions

Wednesday 11 September 2024 14:30 (30 minutes)

Presenter: ZHANG, Yu (Bielefeld University)

Session Classification: QCD Thermodyanmics

Contribution ID: 23

Type: **not specified**

Superfluids of parity-doubled baryons in neutron stars

Wednesday 11 September 2024 15:00 (40 minutes)

Presenter: SASAKI, Chihiro (University of Wroclaw & SKCM2 at Hiroshima University)

Session Classification: QCD Thermodyanmics

Contribution ID: 24

Type: **not specified**

Recent progress on the QCD phase diagram

Thursday 12 September 2024 09:00 (40 minutes)

Presenter: GUENTHER, Jana N. (University of Wuppertal)

Session Classification: QCD Thermodynamics

Contribution ID: 25

Type: **not specified**

New Insights into Charm Thermodynamics from the Lattice Continuum Limit

Thursday 12 September 2024 09:40 (40 minutes)

Presenter: SHARMA, Sipaz (Bielefeld University)

Session Classification: QCD Thermodyanmics

Contribution ID: 26

Type: **not specified**

Chiral restoration and deconfinement phase transitions under external magnetic field

Thursday 12 September 2024 10:50 (40 minutes)

Presenter: MAO, Shijun (Xi'an Jiaotong University)

Session Classification: QCD in external fields

Contribution ID: 27

Type: **not specified**

Fluctuations of conserved charges in strong magnetic fields with (2+1)-flavor QCD

Thursday 12 September 2024 11:30 (30 minutes)

Presenter: GU, Jin-Biao (Central China Normal University)

Session Classification: QCD in external fields

Contribution ID: 28

Type: **not specified**

QCD EoS in strong magnetic fields and nonzero baryon density

Thursday 12 September 2024 14:30 (30 minutes)

Presenter: KUMAR, Arpith (Central China Normal University)

Session Classification: QCD in external fields

Contribution ID: 29

Type: **not specified**

The Roberge-Weiss transition in $N_f = 2+1$ QCD with background magnetic fields

Thursday 12 September 2024 15:00 (30 minutes)

Presenter: ZAMBELLO, Kevin (University of Pisa and INFN)

Session Classification: QCD in external fields

Contribution ID: 30

Type: **not specified**

QCD phase diagram in the $T - eB$ plane for varying pion mass

Thursday 12 September 2024 16:00 (30 minutes)

Presenter: CHOWDHURY, Aminul Islam (University of Chinese Academy of Sciences)

Session Classification: QCD in external fields

Contribution ID: **31**

Type: **not specified**

Chiral Soliton Lattice turns into 3D crystal

Thursday 12 September 2024 16:30 (40 minutes)

Presenter: SCHMITT, Andreas (University of Southampton)

Session Classification: QCD in external fields

Contribution ID: 32

Type: **not specified**

Fluctuations of conserved charges from lattice and HRG and the freezeout in HIC

Friday 13 September 2024 11:10 (40 minutes)

Presenter: PETRECKZY, Peter (BNL)

Session Classification: QCD and HRG

Contribution ID: **33**

Type: **not specified**

In-medium effects from S-matrix

Friday 13 September 2024 10:30 (40 minutes)

Presenter: LO, Pok Man (University of Wroclaw)

Session Classification: QCD and HRG

Contribution ID: 34

Type: **not specified**

Work in progress on analytic continuation from imaginary chemical potential

Friday 13 September 2024 09:00 (30 minutes)

Presenter: ALIBERTI, Marco (University of Parma and INFN - Istituto Nazionale di Fisica Nucleare)

Session Classification: QCD and Machine Learning

Contribution ID: 35

Type: **not specified**

Testing machine learning against finite size scaling using MAFs

Friday 13 September 2024 09:30 (30 minutes)

Presenter: SINGH, Simran (Universität Bielefeld)

Session Classification: QCD and Machine Learning