

Session Program

2-8 Nov 2025



42nd International Symposium on Lattice Field Theory (Lattice 2025)

QCD at nonzero temperature and density

TIFR Mumbai, Homi Bhabha Auditorium

Tata Institute of Fundamental Research, 1, Homi Bhabha Road, Navy Nagar, Colaba, Mumbai, India. Pin -
400 005

Monday 3 November

14:30

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium | **Convener:** Simon Hands

14:30–14:50 **On the lattice phase structure of massless many-flavour QCD**

Speaker

Jan Philipp Klinger

14:50–15:10

Universal and non-universal finite volume effects in the vicinity of the chiral phase transition in (2+1)-flavor QCD

Speaker

Sabarnya Mitra

15:10–15:30

QCD phase transition with overlap fermions

Speaker

Andrey Kotov

15:30–15:50

Investigating Phase Structure of three-flavor QCD with Domain Wall Fermions at Finite Temperature

Speaker

Yasumichi Aoki

15:50–16:10

The QCD Phase Transition at the Physical Point with (2+1)-Flavor Möbius Domain Wall Fermions

Speaker

Yu Zhang

16:10

16:40

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium | **Convener:** Christian Schmidt-Sonntag

16:40–17:00

Complex Langevin simulations with a kernel

Speaker

Michael Mandl

17:00–17:20

Finite density lattice QCD as an inverse problem (aka analytical continuation from imaginary to real chemical potential via Cauchy integral formula)

Speaker

Francesco Di Renzo

17:20–17:40

Developments on analytic continuation from imaginary chemical potential

Speaker

Marco Aliberti

17:40-18:00

QCD phase boundary from strangeness fluctuations on a high statistics lattice data set

Speaker

Piyush Kumar

18:00-18:20

An accurate description of 2+1 flavour QCD in a low-energy EFT

Speaker

Sourendu Gupta

18:20

Tuesday 4 November

14:50

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium | **Convener:** Shinji Ejiri

14:50–15:10

Unscreened potential and charmonium width from lattice QCD

Speaker

Rasmus Larsen

15:10–15:30

Understanding the spin-spin interactions among heavy quarks at finite temperature

Speaker

Swagatam Tah

15:30–15:50

Color electric field correlators for diffusion of heavy quarkonia in a gluon plasma

Speaker

Saumen Datta

15:50–16:10

Quarkonium in non-zero isospin chemical potential environment at $T \gtrsim 0$

Speaker

Se Yong Kim

16:10

16:40

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium | **Convener:** Victor Braguta

16:40–17:00

Towards a Determination of thermal static Potential at Finite Density from Lattice QCD

Speaker

Jishnu Goswami

17:00–17:20

Shear Viscosity: Renormalization of the EMT in Full QCD

Speaker

Pavan Pavan

17:20–17:40

Spectral reconstruction techniques, their shortcomings and relevance to the electric conductivity coefficient

Speaker

Christian Andratschke

17:40–18:00

Spectral reconstruction and dimensional reduction in high-temperature gauge theories

Speaker

Pavel Buividovich

18:00

Wednesday 5 November

09:00

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium | **Convener:** Francesco Di Renzo

09:00–09:20

Understanding dimensional reduction in finite temperature QCD from spatial string tension and its consequences

Speaker

Sayantan Sharma

09:20–09:40

Spatial string tension at high temperatures and quantitative tests of dimensionally reduced effective theories

Speaker

Vishal Rao

09:40–10:00

Hadronic screening masses in thermal QCD up to the electroweak scale

Speaker

Marco Cè

10:00–10:20

Topological String Configurations in Finite-Temperature SU(3) Gauge Theory

Speaker

Sumit Shaw

10:20

10:50

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium

10:50–11:10

$U(1)_A$ symmetry restoration at finite temperature with mesonic correlators

Speaker

Ryan Bignell

11:10–11:30

Understanding properties of the Dirac eigenspectrum in QCD and approach to thermalization

Speaker

RAVI SHANKER

11:30–11:50

Topological susceptibility with 2+1 flavor Moebius domain wall fermion at finite temperature

Speaker

Issaku Kanamori

12:00

Friday 7 November

14:30

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium

14:30–14:50

Phase structure of lattice QCD in the heavy quark high-density region and the three-state Potts model

Speaker

Shinji Ejiri

14:50–15:10

QCD in strong magnetic fields: fluctuations of conserved charges and EoS

Speaker

Arpith Kumar

15:10–15:30

Deconfinement and chiral aspects of the QCD crossover under magnetic fields: static-quark entropy and chiral susceptibility

Speaker

rishabh thakkar

15:30–15:50

QCD Anderson transition with overlap valence quarks and influence of external magnetic fields

Speaker

Robin Kehr

15:50–16:10

Inhomogeneous condensate and phase structure in the (1+1)d Gross-Neveu Model based on an Extended k-Shape Method

Speaker

Chiho Nonaka

16:10

16:40

QCD at nonzero temperature and density

Session | **Location:** Homi Bhabha Auditorium | **Convener:** Se Yong Kim

16:40–17:00

Hybrid Charmonium at Finite Temperature

Speaker

Juan Andres Urrea Nino

17:00–17:20

Understanding thermalization of the magnetic gluons in a non-Abelian gauge theory

Speaker

Sayak Guin

17:20–17:40

Spatially inhomogeneous confinement/deconfinement phase transition in accelerated gluodynamics

Speaker

Victor Braguta

17:40–18:00

Spatially inhomogeneous confinement/deconfinement phase transition in rotating QGP

Speaker

Artem Roenko

18:20