

Analytic structure of QCD and Yang-Lee edge singularity

Report of Contributions

Contribution ID: 1

Type: **not specified**

Locating the QCD critical endpoint from Lee-Yang edge singularities using multi-point Padé approximations

Monday 8 September 2025 10:30 (1 hour)

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

Session Classification: Lattice

Contribution ID: 2

Type: **not specified**

Machine Learning Lee-Yang Zeros

Monday 8 September 2025 11:30 (1 hour)

Presenter: GOSWAMI, Jishnu (Bielefeld University)

Session Classification: Lattice

Contribution ID: 3

Type: **not specified**

Mapping a critical point on the pion condensate line from unbiased exponentially resumed estimates of Lee-Yang zeros in finite isospin densities

Monday 8 September 2025 16:30 (1 hour)

Presenter: MITRA, Sabarnya (Bielefeld University)

Session Classification: Lattice

Contribution ID: 4

Type: **not specified**

Thermodynamics of the hadronic phase and the phase diagram.

Monday 8 September 2025 14:00 (1 hour)

Presenter: BORSANYI, Szabolcs (University of Wuppertal)

Session Classification: Lattice

Contribution ID: 5

Type: **not specified**

Lee-Yang zeros and critical endpoint predictions from high-statistics Wuppertal-Budapest data

Monday 8 September 2025 15:00 (1 hour)

Presenter: ADAM, Alexander (University of Wuppertal)

Session Classification: Lattice

Contribution ID: 6

Type: **not specified**

Searching for the QCD Critical Endpoint at Low Temperature with Lattice QCD

Tuesday 9 September 2025 09:00 (1 hour)

Presenter: DING, Heng-Tong (Central China Normal University)

Session Classification: Lattice

Contribution ID: 7

Type: **not specified**

Yang-Lee zeros from the quark number density and the analytic structure of the universal scaling function

Tuesday 9 September 2025 10:30 (1 hour)

Presenter: SCHMIDT, Christian (Bielefeld University)

Session Classification: Lattice

Contribution ID: 8

Type: **not specified**

Finite-size scaling of Lee-Yang zeros in heavy-quark QCD

Tuesday 9 September 2025 11:30 (1 hour)

Presenter: KITAZAWA, Masakiyo (Yukawa Institute for Theoretical Physics, Kyoto University)

Session Classification: Lattice

Contribution ID: 9

Type: **not specified**

Lee–Yang–Zero Ratio Method and Its Application to the QCD Phase Diagram

Tuesday 9 September 2025 14:00 (1 hour)

Presenter: WADA, Tatsuya (YITP/Kyoto University)

Session Classification: Lattice

Contribution ID: **10**

Type: **not specified**

tba

Wednesday 10 September 2025 09:00 (1 hour)

Presenter: STEPHANOV, Mikhail

Session Classification: Generic analytic structure near second-order PT

Contribution ID: **11**

Type: **not specified**

Lee Yang zeros, Pade resummations and proton number cumulants

Wednesday 10 September 2025 10:30 (1 hour)

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

Session Classification: Generic analytic structure near second-order PT

Contribution ID: 12

Type: **not specified**

Universality of the Yang-Lee edge singularity and its applications

Wednesday 10 September 2025 11:30 (1 hour)

Presenter: RENNECKE, Fabian (JLU Giessen)

Session Classification: Generic analytic structure near second-order PT

Contribution ID: **13**

Type: **not specified**

tba

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

Session Classification: Generic analytic structure near second-order PT

Contribution ID: 14

Type: **not specified**

Estimates on the convergence of expansions at finite baryon chemical potentials

Thursday 11 September 2025 09:00 (1 hour)

Presenter: YIN, Shi (Institute for Theoretical Physics, Justus Liebig University Giessen)

Session Classification: Functional Methods

Contribution ID: **15**

Type: **not specified**

tba

Thursday 11 September 2025 10:30 (1 hour)

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

Session Classification: Functional Methods

Contribution ID: 16

Type: **not specified**

Lee Yang edge singularities in QCD in association with chiral, deconfinement and RW phase transition

Thursday 11 September 2025 11:30 (1 hour)

Presenter: GAO, Fei

Session Classification: Functional Methods

Contribution ID: 17

Type: **not specified**

Finite density QCD as an inverse problem: analytic continuation, Lee-Yang zeros and all that

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

Session Classification: Functional Methods

Contribution ID: **18**

Type: **not specified**

Finite density QCD as an inverse problem: analytic continuation, Lee-Yang zeros and all that

Thursday 11 September 2025 14:00 (1 hour)

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

Session Classification: Lattice

Contribution ID: **19**

Type: **not specified**

The Yang-Lee singularity in 2D Ising field theory

Friday 12 September 2025 09:00 (1 hour)

Presenter: XU, Hao-Lan (ICTP-SAIFR)

Session Classification: Formal

Contribution ID: 20

Type: **not specified**

On the analytic structure of Bethe-Salpeter equation for 't Hooft and Ising model

Friday 12 September 2025 10:30 (1 hour)

Presenter: WANG, Yu-Ping (YITP, Stony Brook University)

Session Classification: Formal

Contribution ID: **21**

Type: **not specified**

Registration

Monday 8 September 2025 08:30 (30 minutes)

Session Classification: Welcome

Contribution ID: 22

Type: **not specified**

Welcome from ECT* Director

Monday 8 September 2025 09:00 (15 minutes)

Session Classification: Welcome

Contribution ID: 23

Type: **not specified**

Broad-stroke introduction and goals of the workshop

Monday 8 September 2025 09:15 (45 minutes)

Presenter: SKOKOV, Vladimir (North Carolina State University)

Session Classification: Welcome