



C3NT Workshop on QCD Critical End Point and Effective Field Theory Methods (CEP-EFT 2026)



Oct. 19 - Oct. 22, 2026
Room 409, Building 9, CCNU, Wuhan, China
<https://indico.pnp.ustc.edu.cn/event/5942/>

Campus Map



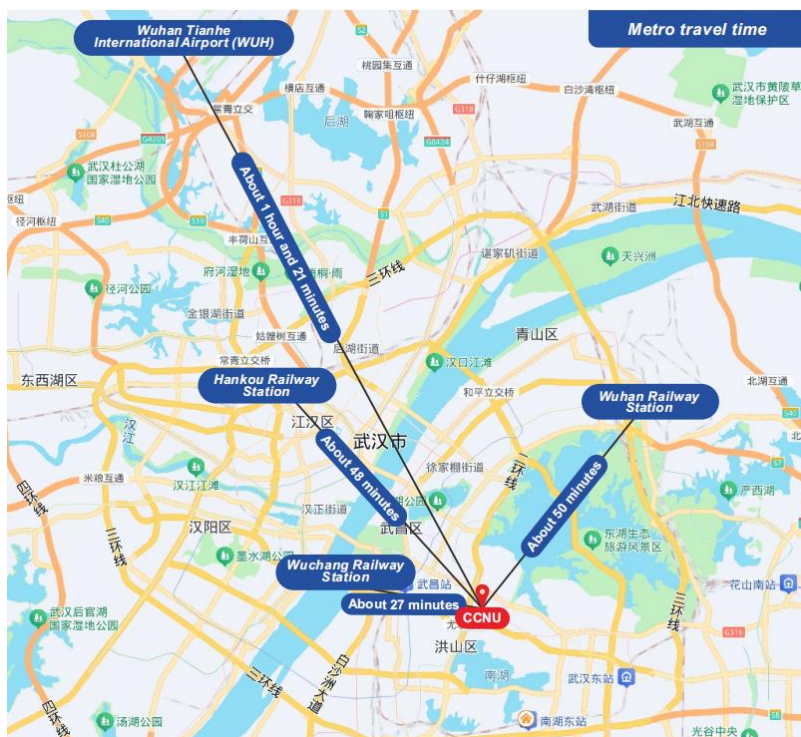
Travel Guidance to CCNU

Taxi: Please navigate to the North Gate of CCNU 请带我去华中师范大学北门

Wuhan Tianhe International Airport (WUH): Take Metro Line 2, get off at Guangbutun Station then follow the signs for exit A

Wuhan Railway Station/ Wuchang Railway Station: Take Metro Line 4, get off at Zhongnan Road Station and transfer to Line 2, get off at Guangbutun Station

Hankou Railway Station: Take Metro Line 2, get off at Guangbutun Station



Contacts

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General Information

Venue Location:

Building 9, Room 409, CCNU (Registration: Oct. 19th 8:00 - 8:50)

Accommodation:

GuiYuan Hotel (桂苑宾馆)

Location: No.152 Luoyu Road, Hongshan District, Wuhan, Hubei, 430079, China

Front Desk Phone Number: +86-27-67863418

Check-in: 24-hour front desk

Breakfast: GuiYuan Hotel 1st Floor (Time: 7:00 - 9:00)

The latest check-out time: 14:00

Dining Locations:

Breakfast: GuiYuan 1st floor

Lunch: GuiXiangYuan 3rd floor Buffet (using dining card)

19th dinner: GuiYuan 1st floor

20th dinner: ShanCheng CaiGuan, on the 3rd floor of Dong'er Canteen

21st dinner: Xiaoguanyuan Restaurant, on the 5th floor of Qinyuanchun Cafeteria, CCNU (小观园, 华师沁园春食堂五楼)

Wi-Fi:

Username: iopp1/ iopp2

Password: 12345678

CEP-EFT 2026 Schedule

Location: Building 9, 409, CCNU
Oct. 19-22, 2026

Day 1 (Monday, 19th)	
Morning Session 1 (8:50 - 10:15) Chair: Xin-Nian Wang (CCNU)	
08:50 - 09:00	<i>Xin-Nian Wang (CCNU)</i> - Opening remarks
09:00 - 10:00	<i>Xiaofeng Luo (CCNU)</i> - Search for the QCD Critical Point and H-dibaryon at RHIC-STAR
10:00 - 10:15	Discussion
10:15 - 10:45	Photo & Coffee break
Morning Session 2 (10:45 - 12:30) Chair: Dirk Rischke (GU Frankfurt)	
10:45 - 11:15	<i>Lorenz von Smekal (JLU Giessen)</i> - Critical Dynamics in QCD Matter
11:15 - 11:45	<i>Michał Heller (UGent)</i> - Hydrodynamics and Nonthermal Fixed Points
11:45 - 12:15	<i>Bao-Jun Cai (FDU)</i> - Nucleon Short-Range Correlations and the Equation of State of Dense Matter
12:15 - 12:30	Discussion
12:30 - 14:30	Lunch
Afternoon Session 1 (14:30 - 15:45) Chair: Xu-Guang Huang (FDU)	
14:30 - 15:00	<i>Long-Gang Pang (CCNU)</i> - AI-Assisted Quasi-Parton Model and the 4D QCD EoS
15:00 - 15:30	<i>Kai Zhou (CUHK-Shenzhen)</i> - Generative AI towards Extreme QCD

15:30 - 15:45	Discussion
15:45 - 16:15	Coffee break
Afternoon Session 2 (16:15 - 17:30) Chair: Wei-jie Fu (DUT)	
16:15 - 16:45	<i>Noriyuki Sogabe (Osaka U)</i> - Theoretical Challenges in the Search for the QCD Critical Point
16:45 - 17:15	<i>Shuo Fang (USTC)</i> - Generalized fluctuation-dissipation theorem and Einstein relation (Online)
17:15 - 17:30	Discussion
18:00 - 19:30	Reception
Day 2 (Tuesday, 20th)	
Morning Session 1 (9:00 - 10:15) Chair: Xiaofeng Luo (CCNU)	
09:00 - 09:30	<i>Defu Hou (CCNU)</i> - QCD Phase Structure under Extreme Conditions
09:30 - 10:00	<i>Xu-Guang Huang (FDU)</i> - Critical spin fluctuation and correlation
10:00 - 10:15	Discussion
10:15 - 10:45	Coffee break
Morning Session 2 (10:45 - 12:30) Chair: Navid Abbasi (LZU)	
10:45 - 11:15	<i>Lorenzo Gavassino (Cambridge)</i> - Effective Field Theory of Quasi-Hydrodynamics from Kinetic Theory
11:15 - 11:45	<i>Xin An (UGent)</i> - Diffusive dynamics: from EFT to observables
11:45 - 12:15	<i>Shanjin Wu (DUT)</i> - Dynamical Critical fluctuations near the QCD critical point

12:15 - 12:30	Discussion
12:30 - 14:30	Lunch
Afternoon Session 1 (14:30 - 15:45) Chair: Wei-Jia Li (DUT)	
14:30 - 15:00	<i>Song He (NBU)</i> - Learning Quark-Gluon Plasma Properties Holographically with Neural ODEs
15:00 - 15:30	<i>Matti Järvinen (ITP-CAS)</i> - The Holographic Critical Point Is Sensitive to Quark Flavors
15:30 - 15:45	Discussion
15:45 - 16:15	Coffee break
Afternoon Session 2 (16:15 - 18:00) Chair: Shanjin Wu (DUT)	
16:15 - 16:45	<i>Mattis Harhoff (UB)</i> - Regularization of Stochastic Fluid Dynamics and Non-perturbative Renormalization of the Shear Viscosity of Incompressible Fluids
16:45 - 17:15	<i>Leon Sieke (JLU Giessen)</i> - Non-equilibrium Phase Transitions near the QCD Critical Point
17:15 - 17:45	<i>Gaoqing Cao (SYSU)</i> - Dilepton Emissions as a Probe of the QCD Critical Point
17:45 - 18:00	Discussion
Day 3 (Wednesday, 21st)	
Morning Session 1 (9:00 - 10:15) Chair: Lorenz von Smekal (JLU Giessen)	
09:00 - 09:30	<i>Li Yan (FDU)</i> - Thermal Response and the QCD Critical Endpoint
09:30 - 10:00	<i>Yu-Shan Mu (FDU)</i> - Searching for the QCD critical end point through fluctuations of intensive quantities
10:00 - 10:15	Discussion

10:15 - 10:45	Coffee break
Morning Session 2 (10:45 - 12:30) Chair: Yi Yin (CUHK-Shenzhen)	
10:45 - 11:15	<i>Atsuhisa Ota (CQU)</i> - Is First-Order Hydrodynamics Really Unstable? - Mode Analysis as an IR Effective Theory
11:15 - 11:45	<i>Sara Tahery (HNU)</i> - Correlation Functions in Stable 1st-order Relativistic Hydrodynamics
11:45 - 12:15	<i>Dong-Lin Wang (USTC)</i> - Late-Time Relaxation from Landau Singularities
12:15 - 12:30	Discussion
12:30 - 14:30	Lunch
Afternoon Session 1 (14:30 - 15:45) Chair: Li Yan (FDU)	
14:30 - 15:00	<i>Koichi Hattori (ZJU)</i> - Moat Regime under a Magnetic Field
15:00 - 15:30	<i>Fei Gao (BIT)</i> - From Magnetic to Inverse Magnetic Catalysis: The Interplay of Quark and Gluon Mass Generation in Magnetic Fields
15:30 - 15:45	Discussion
15:45 - 16:15	Coffee break
Afternoon Session 2 (16:15 - 18:00) Chair: Fei Gao (BIT)	
16:15 - 16:45	<i>Yi Lu (JLU Giessen)</i> - New Insights on Freeze-out in Heavy-Ion Collisions via Functional QCD
16:45 - 17:15	<i>Yong-rui Chen (JLU Giessen)</i> - Critical Pion Dynamics near the QCD Chiral Transition
17:15 - 17:45	<i>Yi Yin+ Mufeng Lei (CUHK-Shenzhen)</i> - When hydro fails but its minimal extension does not
17:45 - 18:00	Discussion

18:00 - 20:00	Banquet
Day 4 (Thursday, 22nd)	
Morning Session 1 (9:00 - 10:15)	
Chair: Defu Hou (CCNU)	
09:00 - 09:30	Dirk Rischke (GU Frankfurt) - Global Equilibrium at Order $O(\hbar^2)$: Pseudo-Gauge Ambiguity, Maxwell Relations, and Thermodynamic Consistency
09:30 - 10:00	Zheng Liu (FDU) - Nonmonotonicity of Transverse Momentum Correlations in Au+Au Collisions at RHIC
10:00 - 10:15	Discussion
10:15 - 10:45	Coffee break
Morning Session 2 (10:45 - 12:45)	
Chair: Shi Pu (USTC)	
10:45 - 11:15	Koichi Murase (Osaka U) - Critical Fluctuation Evolution with Second-Order Baryon Diffusion Coupled to a Chiral Condensate
11:15 - 11:45	Yong-Jia Huang (PMO) - Hadron-Quark Transition at High Baryon density from Neutron-Star Observations and Prospects for KiloHertz Gravitational Waves
11:45 - 12:15	Jingyi Chao (JXNU) - Critical Dynamics from Dyson-Schwinger Equations in Model H
12:15 - 12:30	Discussion
12:30 - 12:45	Navid Abbasi (LZU) - Summary

Website: <https://indico.pnp.ustc.edu.cn/event/5942/>

C3NT Website: <https://c3nt.ccnu.edu.cn/>

Email: c3nt@ccnu.edu.cn



Organizing Committee

Navid Abbasi	Lanzhou University
Masaru Hongo	Niigata University
Eduardo Grossi	University of Florence
Shi Pu	University of Science and Technology of China
Yi Yin	The Chinese University of Hong Kong, Shenzhen

International Advisory Committee

Blaise Goutéraux	CEA Saclay
Sašo Grozdanov	University of Edinburgh
Michał Heller	Ghent University
Masakiyo Kitazawa	YITP, Kyoto University
Dirk Rischke	Goethe University Frankfurt
Thomas Schäfer	North Carolina State University
Lorenz von Smekal	Justus Liebig University Giessen

Introduction to C3NT

Mission:

The Central China Center for Nuclear Theory (C3NT) in the Institute of Particle Physics (IOPP) at the Central China Normal University (CCNU) is designed to provide an open environment that is conducive for cutting-edge research and collaboration in the forefront of nuclear theory and phenomenology with close contact with experiments. These areas of research will cover:

- Nuclear structure
- Nuclear matter under extreme conditions
- Hadron physics
- Nuclear astrophysics and fundamental symmetry
- Quantum computing and AI in nuclear physics

Located in the city of Wuhan at the heart of mainland China with convenient and direct connections to many cities throughout China and Asia, the Center serves as a platform for exchange of new ideas, theoretical and numerical tools with short and long workshops, encouraging collaboration with focused program and training of young scientists with the annual Huada School on QCD. With diverse and vigorous local research programs in IOPP and participating institutions, the Center will also be a hub for regional collaboration among members of participating institutions fermented through the interaction with the international community at the Center.

Programs:

Programs will be selected by the Board of Directors from proposals solicited through annual calls for proposals. Short workshops can be submitted and approved throughout the year based on interest and programs committed for the current year.

Long workshops: Workshops for up to three weeks on selected topics of current interest. Participants are by invitation only selected by the organizers and are required to stay for at least one week. Ample time will be set aside for discussions and collaboration with only several talks each day. The workshop can have a one-day symposium during the program highlighting the work of participants.

Short workshops: Workshops for a few days on topics of current and urgent interest. Participants are by invitation only selected by the organizers.

Huada School on QCD: An annual school which aims to provide basic training in strong interaction physics and related areas for graduate students, postdocs and young researchers in the field of high-energy nuclear and particle physics. The school is normally limited to about 60 participants and focuses on a selected theme each year.

Regional Meetings: The Center will host one or two regional meetings each year to promote regional collaborations and exchange.

C3NT Committee & Admin

C3NT COMMITTEE & ADMIN

Administration

Director: Xin-Nian Wang

Deputy Directors:

Weiyao Ke, Long-Gang Pang

Scientific Secretary:

Qiang Yuan, Xiangyu Shui

Board of Directors (alphabetically)

The Board selects and approves proposals for programs submitted to the Center. The Board is also invited to give advice on the Huada School on QCD, local research programs in nuclear theory and other activities at the Center.

- Gert Aarts (Swansea, UK)
- Fengkun Guo (ITP, CN)
- Tetsufumi Hirano (Sophia U, JP)
- Su Houngh Lee (Yonsei U, KR)
- Guy Moore (TU Darmstadt, DE)
- Huichao Song (PKU, CN)
- Werner Vogelsang (Tuebingen, DE)
- Urs Wiedemann (CERN, CH), Chair
- Furong Xu (PKU, CN)

Scientific Advisory Committee

Members of the Committee are invited to participate in future programs at the Center and provide advice on the topic of the future workshops, schools and the local research activities.

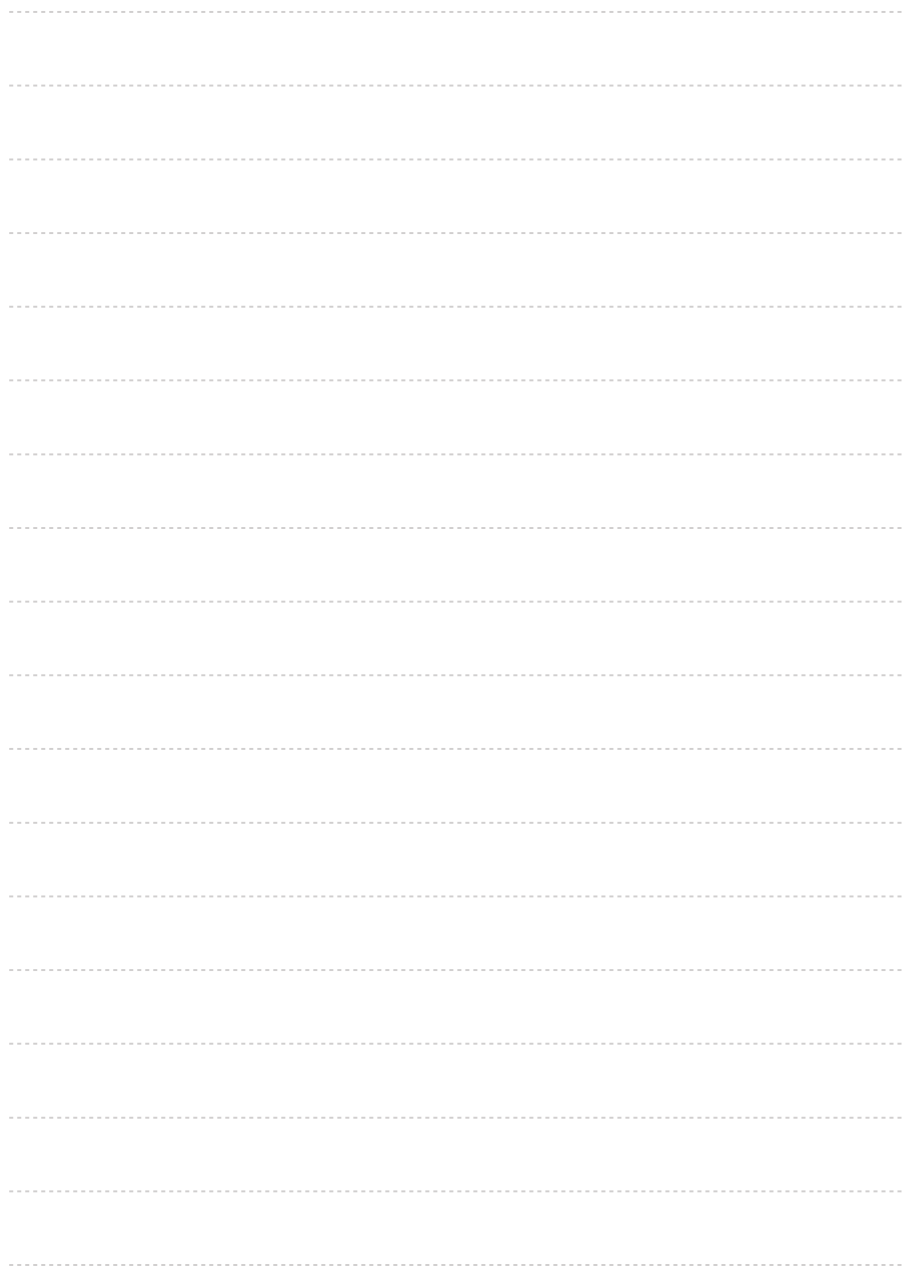
- Sinya Aoki (Kyoto U, JP)
- Jean-Paul Blaizot (Saclay, FR)

- Ronggeng Cai (NBU, CN)
- Elena González Ferreiro (USC, ES)
- Kenji Fukushima (U Tokyo, JP)
- Sourendu Gupta (TIFR, IN)
- Frithjof Karsch (Bielefeld, DE)
- Zuo-tang Liang (SDU, CN)
- Yeunhwan Lim (Yonsei, KR)
- Huey-Wen Lin (MSU, US)
- Weiping Liu (SUSTech, CN)
- Maria Paola Lombardo (INFN Florence, IT)
- Ming-xing Luo (Beijing CSRC, CN)
- Boqiang Ma (ZZU, CN)
- Yugang Ma (ECNU, CN), Chair
- Larry McLerran (UW, US)
- Ulf-G. Meissner (U Bonn, DE)
- Jie Meng (PKU, CN)
- Berndt Mueller (Duke, US)
- Krishna Rajagopal (MIT, US)
- Michael Ramsey-Musolf (TDLI, CN)
- Krzysztof Redlich (UWR, PL)
- Zhongzhou Ren (Tongji, CN)
- Dirk Rischke (Frankfurt, DE)
- Enke Wang (SCNU, CN)
- Qun Wang (USTC, CN) co-chair
- Qiang Zhao (IHEP, CN)
- Shan-Gui Zhou (ITP, CN)
- Bingsong Zou (Tsinghua, CN)
- Pengfei Zhuang (Tsinghua, CN)

Regional Committee

Representatives from selected universities in central China for coordination of programs and collaboration.

- Wei-Tian Deng (HUST)
- Wei Dai (CUG)
- Jianyou Guo (AHU)
- Xiaohua Li (USC)
- Tan Luo (HNU)
- Chunwang Ma (Henan NU)
- Shi Pu (USTC)
- En Wang (ZZU)
- Xinyang Wang (AUST)
- Xiaonu Xiong (CSU)
- Zhi-Qing Zhang (HAUT)
- Xianhui Zhong (Hunan NU)



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