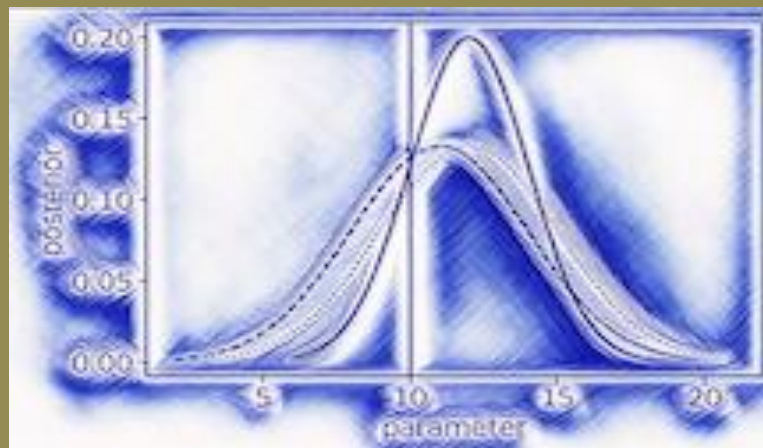


Precision Frontier of QCD Matter: *Inference and Uncertainty Quantification*



Central China
Center for Nuclear Theory
华中核理论中心

Sep 01–12, 2025, Wuhan



Organizers:

Jean-Francois Paquet

Kai Zhou

Matthew Luzum

Raymond Ehlers

Weiyao Ke

Wilke van der Schee

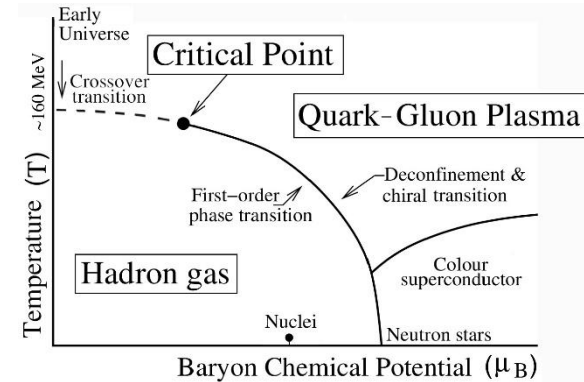
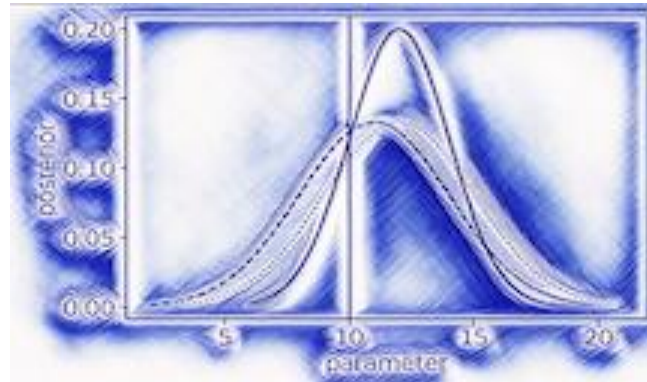
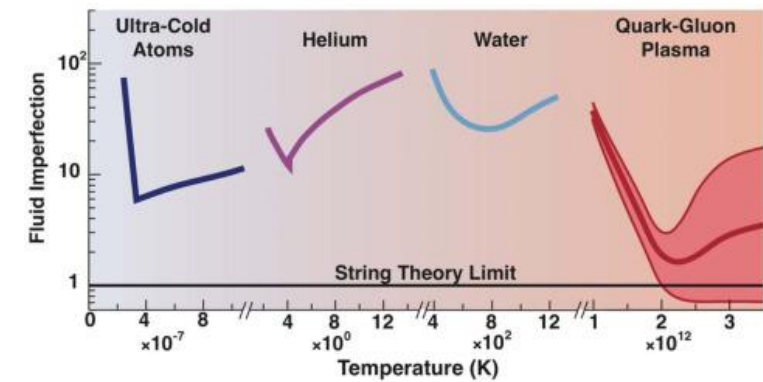
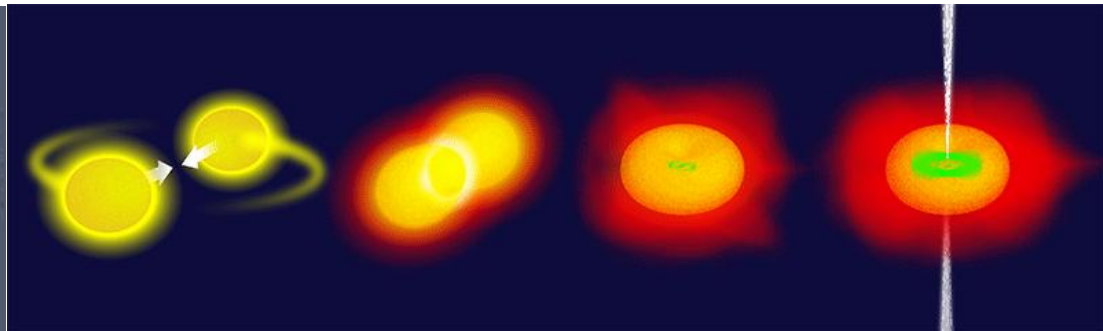
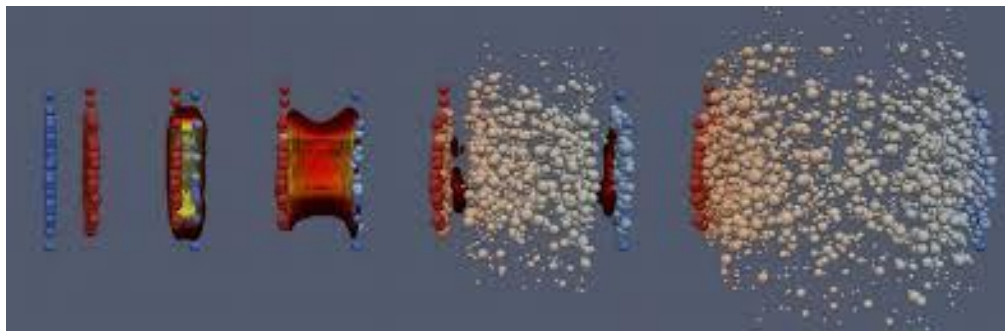


Workshop Conference Room: 409

- Wifi: iopp-9409
password: 12345678

Office Space: Room 427

- Room Passcode has been sent to email XXXXXX#.
- 22 seats with names assigned.
If two people are assigned to the same seat, they do not overlap in time.
- Wifi: iopp1
password: 12345678
- Bottled water + coffee machine



Precision Frontier of QCD Matter: Inference & Uncertainty Quantification

Central China Center for Nuclear Theory (C3NT) at IOPP, CCNU
Building 9, Room 409, Sep 01 -- 12

Scientific Program of Week I, Sep 01-05

MON

09:30--10:15 Dr. Shuzhe Shi

Toward constraining QCD phase transitions in neutron star interiors:

Bayesian inference with a Tolman-Oppenheimer-Volkoff linear response analysis

11:00--11:45 Dr. NARESH KUMAR PATRA

Inferring the Equation of State from Neutron Star Observables via Machine Learning

14:00--15:00

Panel discussion

TUE

09:15--10:00 Dr. Wilke Van Der Schee

Bayesian inference in heavy ion collisions

10:30--12:00 Prof. Tetsuo Hatsuda

Special Colloquium: From Quarks to Neutron Stars

14:00--14:45 Prof. Zhen Zhang

Bayesian and frequentist model comparison for nuclear symmetry energy

WED

09:30--10:15 Dr. Andreas Kirchner

Calibration of rapidity dependent multiplicities using a three-dimensional initial state model

11:00--11:45 Prof. Tetsuo Hatsuda

Hadron-Hadron Interaction from Lattice QCD: Theory meets experiments

THU

09:30--10:15 Dr. Adam Takacs

High-Dimensional Unfolding in Large Backgrounds

11:00--11:45 Dr. Manjunath Omana Kuttan

Deep generative event-by-event heavy-ion simulations for next-generation experiments

14:00--14:45 Dr. Jasper Parkkila

Emergence and quantification of collective effects across collision systems

FRI

09:30--10:15 Prof. Kai Zhou

Extreme QCD matter exploration with machine learning

11:00--11:45 Dr. Shirajum Monira

Quantifying the role of strangeness in baryon production mechanisms through angular correlations in pp collisions at 13.6 TeV with ALICE 2

14:00--14:45

TBD

Zoom Link: <https://us06web.zoom.us/j/8393196570>

Website: <https://indico.ihep.ac.cn/event/25126>

Organizers: Jean-Francois Paquet, Kai Zhou, Matt Luzum,
Raymond Ehlers, Wei Yao Ke, Wilke van der Schee



Scan to join Zoom

Workshop Schedule

- Talks 45mins (including Q&A), please remember to upload slide before your session.
- Panel discussion.
- Special IOPP Colloquium on Tuesday 10:30am by Prof. Hatsuda (same room).
- No schedule on the weekends.

<https://indico.ihep.ac.cn/event/25126/timetable>

Remote participation

- Zoom: <https://us06web.zoom.us/j/8393196570>
- No password, waiting room enabled.

Entrance to the Campus

- Chinese citizen can scan their ID cards to enter the gate (north gate has reopened).
- For foreign participants, you can show them the invitation document, or the room key.
- Be careful of the construction sites on campus.

The map shows the HUST campus with various landmarks and transportation routes. Key locations include:

- North Gate**: Located at the top center of the map.
- East Gate**: Located at the bottom right of the map.
- Metro 2 & 8 Jiedaokou Malls**: Located at the top left of the map.
- Metro 2 Guangbutun**: Located in the upper right quadrant.
- Physics Building**: Located in the center-right area.
- Hotel**: Located near the East Gate.
- Metro 2 & 11 Huaguan**: Located at the bottom right of the map.
- Cafeteria**: Multiple locations are marked, including one near the North Gate and another near the East Gate.
- Laundry, pick up service**: Located in the middle-left area.

The red route starts at the North Gate, goes south, then east, and finally south again to the East Gate. The blue route starts at the East Gate, goes north, then west, and finally north again to the Metro 2 & 11 Huaguan station.

- Lunch: cafeteria
- Many more restaurants near campus + two major shopping malls
- Group dinner: Thursday night of each week.

Method of payment

- Cash and credit card are not very common.
- Two major method of payments: WeChat & Alipay
- For cafeteria and market on campus, you can pay with the Campus Consumption Card (500rmb).
 - Please return card to the secretary before leaving.
 - If run out of fund, please come to us.



The hotel does not have Laundry Service

- There is one (万洗洗衣) on campus with pick-up/drop-off service.
- If you need Laundry, please contact the workshop secretary to schedule a pick up.

The City of Wuhan



Attractions in the urban area of Wuhan

Hubei Provincial Museum
Tour on Wednesday.



The Yellow Crane Tower



The East Lake of Wuhan

Hankou Historical Area

