

Memorandum of Understanding

between

The Regents of the University of California, as Management and Operating

Contractor for Lawrence Berkeley National Laboratory

and

Central China Normal University

Concerning Cooperation in the Field of High Energy Nuclear Physics

This Memorandum of Understanding (MOU) is between The Regents of the University of California, in its capacity as manager and operator of the Lawrence Berkeley National Laboratory (LBNL), and Central China Normal University (CCNU). LBNL is a U.S. Department of Energy National Laboratory managed and operated by The Regents of the University of California pursuant to Contract No. DE-AC02-05CH11231 (Contract 31). CCNU is a public university under China's Ministry of Education and a leader in the field of high energy nuclear physics.

LBNL and CCNU are collectively herein referred to as "Participants" or separately as "Participant."

1. Objective

The purpose of this MOU is to explore potential future collaboration between the Participants in the field of high energy nuclear physics.

2. Areas of Planned Cooperation

- A. The Participants express their intention to endeavor to collaborate on experimental physics research using the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory, and the Large Hadron Collider (LHC) at the European Organization for Nuclear Research (CERN) in the following areas:
 - i. Training and scientific collaboration in experimental and theoretical aspects of Quantum Chromo-dynamics (QCD) matter;
 - ii. Construction of advanced tracking detectors for collider experiments;
 - iii. Scientific collaboration on a future Electron-Ion Collider (EIC); and
 - iv. Advanced computing techniques applicable to theoretical and experimental study of QCD.

B. The above activities and cooperation should be developed by:

- i. Exchange of information relating to the design, construction and operation of detectors at RHIC, the LHC, and the EIC;
- ii. Visits and exchanges of students, researchers and experts.

C. The scope of cooperation may be changed by written consent of the Participants, with any future collaborative research to be undertaken pursuant to an appropriate contractual agreement.

3. Designated Representatives

- A. To administer the implementation of this MOU, each Participant should designate one principal coordinator in charge of the collaboration, through whom all requests and plans of that Participant should be made.
- B. The designated representatives may hold meetings when necessary to discuss matters related to cooperation under this MOU.
- C. The designated representative for LBNL is to be the Nuclear Science Division Director, or other LBNL designated principal coordinator. The designated representative for CCNU is to be the Director of the Center of Nuclear Matter Science, or another designee as may be appointed by CCNU.

4. Commencement, Modification and Discontinuation

- A. Cooperative activities under this MOU may commence upon signature and continue for a five (5) year period, unless discontinued in accordance with Paragraph B of this Section 4.
- B. The Participants may discontinue this MOU at any time in writing. A Participant that wishes to discontinue its participation in this MOU should endeavor to provide at least thirty (30) days written notice to the other Participant.
- C. This MOU may be modified in writing by mutual consent of the Participants, and may be extended for additional periods.

5. General Considerations

- A. Each Participant should conduct the activities contemplated by this MOU in accordance with all applicable laws, regulations and other requirements to which it is subject, including, without limitation, export control laws and environment, health and safety laws and regulations.
- B. The Participants do not anticipate a need to exchange any business-confidential information. If this expectation changes as future projects are developed, the Participants should conclude an appropriate written agreement therefor.
- C. This MOU does not create any legally binding obligations.

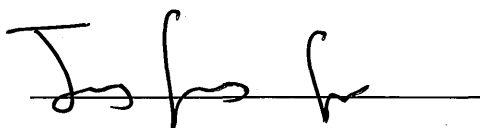
- D. The conduct of cooperative activities contemplated by this MOU is subject to the availability of funding, personnel, and other resources.
- E. Each Participant is to be responsible for the costs it incurs in participating in cooperative activities under this MOU.

Signed in duplicate.

THE REGENTS OF THE UNIVERSITY
OF CALIFORNIA, LAWRENCE
BERKELEY NATIONAL LABORATORY

CENTRAL CHINA NORMAL
UNIVERSITY

By:



Name: Dr. A. Paul Alivisatos

Title: Laboratory Director

Date

January 6, 2014

By:



Name: Zongkai Yang

Title: President

Date

Jan 6. 2014.