### STATEMENT OF INTEREST BETWEEN

## THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

### THE CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE OF FRANCE

### **CONCERNING**

# COLLABORATION ON THE DEVELOPMENT OF PARTICLE ACCELERATORS, DETECTORS, AND COMPUTATIONAL RESEARCH FOR DISCOVERY SCIENCE

The Department of Energy of the United States of America ("DOE") and the Centre National de la Recherche Scientifique of France ("CNRS"), represented by the Director of the Institut National de Physique Nucléaire et de Physique des Particules, hereinafter referred to individually as a "Participant" and collectively as the "Participants,"

RECOGNIZING their existing cooperation under the Agreement on Science and Technology Cooperation between the Government of the United States of America and the Government of the French Republic of October 22, 2008 (the "S&T Agreement"), and the Agreement between the Department of Energy of the United States of America and the Centre National de la Recherche Scientifique of France for Cooperation in Basic Science and Development of April 4, 2005 (the "2005 Agreement") and Implementing Arrangement No. 2 thereto;

NOTING their pursuit of research and technological activities in a number of areas of common interest, and that participation in each other's research and development activities on a basis of reciprocity will continue to provide economic and social benefits;

NOTING their shared desire to continue cooperation in the conduct of research and development in fundamental science and technologies in the area related to particle accelerators, detectors, and computational research for discovery science;

DESIRING to leverage the expertise of each Participant for the mutual benefit of both Participants in their respective countries; and

DESIRING to strengthen their bond through greater cooperation;

State their interest as follows:

### Section 1: Planned Areas of Cooperation

- 1.1 The Participants recognize the importance of, and intend to further strengthen, their cooperation in the following areas related to the development of advanced high-intensity accelerators to support particle physics experiments and scientific research (hereinafter the "Areas of Cooperation"). The Areas of Cooperation may include, but are not limited to:
  - Cooperation in accelerator science and technologies research and development for the Proton Improvement Plan-II Accelerator Project ("PIP-II"), hosted by DOE's Fermi National Accelerator Laboratory ("Fermilab"), including in particular the research and development of technologies for the construction of the PIP-II superconducting linear accelerator;
  - 2. Cooperation in the international Deep Underground Neutrino Experiment, hosted by Fermilab, including the research and development of detectors and computing technologies for the experiment, and in the scientific modeling, simulation, and data processing and analysis for the collaboration;
  - 3. Participation of scientists and/or technical staff from DOE and CNRS laboratories and from universities in the United States and France in scientific and/or technical reviews of particle physics projects and in other coordination to accomplish the objectives of the Areas of Cooperation.
- 1.2 Cooperative activities in the Areas of Cooperation may include the mutual exchange of scientific and/or technical staff; training of graduate students and/or junior scientists; exchange of know-how, equipment, and/or materials; and analysis of data and dissemination of scholarly publications. Other areas of interest for joint research and cooperation may be identified at a later stage by the Participants.
- 1.3 The Participants intend to establish a joint cooperation committee, comprised of representatives of each Participant (which may include participating national laboratories), in order to further coordinate the planning, management, and implementation of the potential Areas of Cooperation identified in this Statement.

### **Section 2: Exchange of Written Instruments**

- 2.1 Each cooperative activity that may involve the sharing of costs or Confidential Information, or that may give rise to the creation of intellectual property or inventions, is intended to be conducted pursuant to a project-specific arrangement under the S&T Agreement or the 2005 Agreement, as appropriate, or other written instrument, which includes detailed provisions for its execution, including such matters as technical scope, management, total costs and payment provisions, schedule, intellectual property and invention rights, and such other matters relevant to the activities to be performed. The term "Confidential Information" as used in this paragraph refers to information that: 1) is not generally known or publicly available from other sources; 2) has not previously lawfully been made available to others without obligation concerning its confidentiality; and 3) is not already in the possession of the recipient without obligation concerning its confidentiality.
- 2.2 Subject to paragraph 2.1 of this Section, additional information on the planned scope of work, itemized list of deliverables, or other intended research and development or cooperative activities to be performed may be exchanged between the Participants and/or their participating national laboratories through non-legally binding written instruments such as project planning documents, letters of intent, or memoranda of understanding, subject to the internal policies and administrative procedures of each Participant. Such instruments may cover, but are not limited to, specifications of equipment or personnel to be exchanged, definition of task responsibilities within a specific project, coordination, contributions, and adjustments of organizational structure as needed.

#### **Section 3: General Considerations**

- 3.1 This Statement is effective upon the date it is signed by the last of the Participants. A Participant who desires to discontinue this Statement should endeavor to provide written notice to the other Participant ninety (90) days in advance of the date of the discontinuation.
- 3.2 This Statement may be modified at any time upon mutual written decision of the Participants.
- 3.3 Each Participant intends to conduct the cooperative activities contemplated by this Statement in accordance with applicable laws, regulations, and procedures to which it is subject, and applicable international agreements to which its Government is party.
- 3.4 The conduct of cooperative activities contemplated by this Statement is subject to the availability of appropriated funds, personnel, and other resources.

- 3.5 Each Participant is responsible for its own personnel and costs of participating in the cooperative activities under this Statement, unless specified otherwise in writing by the Participants.
- This Statement does not create any legally binding rights or obligations between the 3.6 Participants.

Signed in duplicate in the English language.

### FOR THE DEPARTMENT OF ENERGY OF THE **UNITED STATES OF AMERICA:**

FOR THE CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE **OF FRANCE:** 

James Siegrist

**James Siegrist Associate Director of Science** for High Energy Physics

Reynald Pain **Director of the Institut National** de Physique Nucléaire et de Physique des Particules

Date: 17-Dec-18

Date: 19. Dec - 2017

Place: Washington DC

Place: PARIS, FRANCE