IMPLEMENTING ARRANGEMENT

BETWEEN

THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA

AND

THE MINISTRY OF EDUCATION, UNIVERSITIES AND RESEARCH OF THE ITALIAN REPUBLIC

FOR COOPERATION IN HIGH ENERGY, ASTROPARTICLE, AND NUCLEAR PHYSICS RESEARCH AND RELATED FIELDS AND TECHNOLOGIES

The Department of Energy of the United States of America and the Ministry of Education, Universities and Research of the Italian Republic (hereinafter referred to as the "Parties" and each, a "Party"):

NOTING their shared view, as confirmed at the Joint Commission Meeting for Science and Technology held in December 2013 in Washington, DC, that cooperation in high energy, astroparticle, and nuclear physics is of mutual benefit to both Parties' countries; and

NOTING FURTHER the Agreement between the Government of the United States of America and the Government of the Italian Republic for Scientific and Technological Cooperation of April 1, 1988, as amended and extended (the "S&T Agreement"),

Have agreed as follows:

Section 1 OBJECTIVE AND SCOPE

- 1.1 The objective of this Implementing Arrangement is to establish the framework for the promotion of scientific and technological cooperation between the Parties in high energy, astroparticle, and nuclear physics research and related fields and technologies, thereby enhancing the Parties' capabilities to make positive contributions in these fields for their mutual benefit.
- 1.2 This Implementing Arrangement is subject to and governed by the S&T Agreement. In the event of any conflict between the provisions of the S&T Agreement and the provisions of this Implementing Arrangement, the provisions of the S&T Agreement shall control.

Section 2 Areas of Cooperation

The scientific and technical areas of cooperation under this Implementing Arrangement may include, but are not limited to, the following:

- a. Neutrino physics
- b. Accelerator science and technology
- c. Particle detectors
- d. Dark matter and dark energy physics
- e. Particle and nuclear astrophysics
- f. Theoretical physics
- g. Exchange and advanced training of junior physicists
- h. Heavy ion physics
- i. Rare decay physics
- j. Collider-based particle physics
- k. Nuclear structure and quark structure of the nucleon
- 1. Quantum information and communication

and such other areas as the Parties may agree to in writing.

Section 3 FORMS OF COOPERATION

Forms of cooperation under this Implementing Arrangement may include:

3.1 Exchange of scientists, engineers and other specialists for agreed periods of time for participation in agreed research, development, analysis, design and experimental activities conducted in research centers, laboratories, engineering offices and other facilities and enterprises of each Party, each Party's contractors

- or each participating institution. Such exchanges of personnel shall be conducted in accordance with Section 7 of this Implementing Arrangement;
- 3.2 Exchange or loan of equipment, samples, materials, instruments and components for testing, as set forth in Sections 8 and 9 of this Implementing Arrangement;
- 3.3 Exchange, on a current basis, of scientific and technical information, and results and methods of research and development, in accordance with Section 10 of this Implementing Arrangement;
- 3.4 Organization of, and participation in, seminars, workshops, and other meetings on specific mutually agreed topics in the fields listed in Section 2 of this Implementing Arrangement;
- 3.5 Joint projects in which the Parties agree to share the work and/or costs;
- 3.6 Exchange programs for the training of pre-doctoral physicists; and
- 3.7 Such other such forms of cooperation as the Parties may agree to in writing.

Section 4 PROJECT ANNEXES

- 4.1 Cooperative activities under this Implementing Arrangement may be undertaken by the Parties or, as appropriate, by laboratories or contractors of the Parties. Each cooperative activity that may involve the sharing of costs or that may give rise to the creation of intellectual property shall be set forth in writing in a Project Annex, which shall be subject to approval by the Principal Coordinators (as provided for in Section 5).
- 4.2 Each Project Annex shall include detailed provisions for carrying out the specified forms of cooperation, including such matters as technical scope, work plan, exchange of business-confidential information, intellectual property rights, management, total costs, cost sharing, and schedule. Each Project Annex shall be subject to and shall refer to this Implementing Arrangement.

Section 5 MANAGEMENT

5.1 Each Party shall designate a Principal Coordinator to supervise activities under this Implementing Arrangement. The Principal Coordinators shall jointly plan and coordinate cooperative activities, co-chair joint meetings, and prepare an annual Program of Cooperation. Each Principal Coordinator may appoint a Technical Coordinator for each cooperative activity.

- 5.2 The Principal Coordinators shall meet on an annual basis, or as otherwise mutually agreed upon, alternately in the United States and in the Italian Republic, or in other locations or by teleconference or videoconference as mutually agreed upon. The host Party shall choose the meeting site and bear the costs for the arrangements associated with the meeting. Representatives from each Party attending these meetings shall be responsible for their own travel and lodging expenses. At these meetings, the Principal Coordinators shall review and assess the progress of activities conducted during the preceding year and the following year's plans for continuation of cooperation under this Implementing Arrangement.
- 5.3 The Principal Coordinators shall jointly prepare a written report of each meeting. Each Party shall have the right to disseminate the written meeting report without prior notification to the other Party after the record has been approved for release by both Parties.
- 5.4 The Principal Coordinators may invite representatives of other organizations of their countries to attend meetings and to serve as advisors to assist in planning the annual meetings and evaluating the progress of cooperative activities under this Implementing Arrangement.

Section 6 ADDITIONAL ORGANIZATIONS

Each Party may invite additional organizations of its country to participate in cooperative activities under this Implementing Arrangement, at the relevant organization's own expense and subject to such other terms and conditions as the Parties may specify. Such organizations in the United States may include, but are not limited to: Fermi National Accelerator Laboratory, Argonne National Laboratory, Brookhaven National Laboratory, Lawrence Berkeley National Laboratory, and SLAC National Laboratory. Such organizations in the Italian Republic may include, but are not limited to: the Instituto Nazionale di Fisica Nucleare.

Section 7 ASSIGNMENT AND EXCHANGE OF PERSONNEL

Unless otherwise agreed in writing, the following provisions shall apply to the assignment or exchange of personnel under this Implementing Arrangement:

7.1 Each Party shall endeavor to ensure the selection of qualified personnel with the skills and competence necessary to conduct the activities planned under this Implementing Arrangement. Each such exchange or assignment shall be agreed

- in advance by an exchange of letters between the Parties referencing this Implementing Arrangement.
- 7.2 Each Party shall be responsible for the salaries, insurance, and allowances to be paid to its staff or its contractors.
- 7.3 Each Party shall pay for the travel and living expenses of its staff or its contractors when on assignment at an establishment of the other Party.
- 7.4 The host Party shall help identify adequate accommodations for the other Party's staff and contractors (and their families) on a mutually agreeable, reciprocal basis.
- 7.5 The host Party shall provide all necessary assistance to the staff of the other Party and its contractors (and their families) as regards administrative formalities, such as making travel arrangements and visa applications.
- 7.6 The staff and contractors of a Party shall comply with the general and special rules of work and safety regulations in force at the host establishment.

Section 8 EXCHANGE OF EQUIPMENT

By mutual agreement, a Party may provide equipment to be utilized in a joint activity. In such event, the following provisions shall apply:

- 8.1 The Party providing the equipment (the "Providing Party") shall supply, as early as possible, a detailed list of the equipment to be provided, together with the relevant specifications and appropriate technical and information documentation related to use, maintenance, and repair of the equipment.
- 8.2 Title to the equipment and necessary spare parts supplied by the Providing Party for use in joint activities shall remain with the Providing Party, and the equipment shall be returned to the Providing Party upon completion of the joint activity, unless otherwise agreed.
- 8.3 Equipment provided pursuant to this Implementing Arrangement shall be brought into operation at the host establishment only by mutual agreement of the Parties.
- 8.4 The host establishment shall provide the necessary premises and shelter for the equipment; utilities such as electric power, water and gas; and normally, shall provide materials to be tested, in accordance with all technical requirements, which shall be as mutually agreed upon.
- 8.5 Responsibility for expenses, safekeeping, and insurance during the transport of equipment from the original location in the country of the Providing Party to the

place of entry in the country of the Party receiving such equipment (the "Receiving Party") shall rest with the Providing Party. If the Providing Party elects to have the equipment returned, it shall be responsible for expenses, safekeeping, and insurance during the transport of the equipment from the original point of entry in the country of the Receiving Party to the final destination in the country of the Providing Party.

- 8.6 Responsibility for expenses, safekeeping, and insurance during the transport of equipment from the place of entry in the country of the Receiving Party to the final destination in the country of the Receiving Party shall rest with the Receiving Party. If the Providing Party elects to have the equipment returned, the Receiving Party shall be responsible for expenses, safekeeping, and insurance during the transport of the equipment from the final destination in the country of the Receiving Party to the original point of entry in the country of the Receiving Party.
- 8.7 Responsibility for expenses, safekeeping, and insurance during the time period that the equipment is in use in the country of the Receiving Party shall rest with the Receiving Party, unless otherwise agreed in writing.
- 8.8 Equipment provided by the Providing Party for use in carrying out joint activities shall be considered to be scientific, not having a commercial character, and the Receiving Party shall work toward obtaining duty-free entry.

Section 9 SAMPLES AND MATERIALS

Unless otherwise agreed in writing, the following provisions shall apply to the transportation and use of samples and materials provided by one Party to the other Party under this Implementing Arrangement:

- 9.1 All samples and materials provided by the Providing Party to the Receiving Party shall remain the property of the Providing Party, and shall be returned to the Providing Party upon request.
- 9.2 Where one Party requests that the other Party provide a sample or material, the Party making the request shall bear all costs and expenses associated with the transportation of the sample or material from the location of the Providing Party to the final destination.
- 9.3 Each Party shall promptly disclose to the other Party all information arising from the examination or testing of samples or materials exchanged under this Implementing Arrangement. The Parties agree that business-confidential information (as defined in Section III of Annex I [Intellectual Property] to the S&T Agreement), which was developed prior to or outside the scope of this

Implementing Arrangement, shall remain business-confidential even though it is contained in the results of an examination or testing of samples or materials. Such information shall be identified as business-confidential by the Party asserting its business-confidential nature as soon as possible after disclosure of all information arising from the examination or testing is made to such Party and the other Party shall be immediately advised of that identification. All information identified as business-confidential shall be controlled as provided in Section III of Annex I to the S&T Agreement. All such business-confidential information is to be controlled as set out in Section III of that Annex.

Section 10 EXCHANGE OF INFORMATION

- 10.1 The Parties may exchange, as agreed on a mutually beneficial basis, scientific and technical information, and results of research and development of work carried out under this Implementing Arrangement. Such information shall be limited to that which the Parties have the right to disclose, either in their possession or available to them, relating to the areas of cooperation described in Section 2.
- 10.2 Seminar proceedings and reports of joint activities carried out under this Implementing Arrangement shall be published as joint publications, as agreed by the Parties.
- 10.3 The Parties agree that information developed and exchanged under this Implementing Arrangement should be given wide distribution. Except as provided in Section III of Annex I to the S&T Agreement, such information may be made available to the public by either Party through customary channels and in accordance with normal procedures of the Parties.
- 10.4 Information transmitted by one Party to the other Party under this Implementing Arrangement shall be accurate to the best knowledge and belief of the transmitting Party. Any equipment transferred by one Party to the other Party under this Implementing Arrangement shall be suitable for its intended use to the best knowledge and belief of the transmitting Party. The transmitting Party does not warrant the suitability or accuracy of the information or equipment transmitted for any particular use or application by the receiving Party or by any third party.
- Information developed jointly by the Parties shall be accurate, and jointly developed information shall be suitable for its intended use, to the best knowledge and belief of both Parties. Neither Party warrants the accuracy of the jointly developed information or the appropriateness of equipment, nor its suitability for any particular use or application by either Party or by any third party.

Section 11 INTELLECTUAL PROPERTY RIGHTS AND BUSINESS-CONFIDENTIAL INFORMATION

The protection and allocation of intellectual property and the treatment of business-confidential information created or furnished in the course of cooperative activities under this Implementing Arrangement shall be governed by the provisions of Annex I (Intellectual Property) to the S&T Agreement.

Section 12 FUNDING

- 12.1 Unless otherwise agreed, all costs resulting from cooperation pursuant to this Implementing Arrangement shall be the responsibility of the Party that incurs such costs.
- 12.2 The conduct of activities under and pursuant to this Implementing Arrangement shall be subject to the availability of appropriated funds, personnel, and other resources.

Section 13 GENERAL PROVISIONS

- 13.1 Each Party shall conduct the activities carried out under this Implementing Arrangement in accordance with the laws and regulations to which it is subject.
- 13.2 Any questions of interpretation or implementation relating to this Implementing Arrangement arising during its term shall be resolved by consultations between the Parties.

Section 14 ENTRY INTO FORCE, DURATION, AMENDMENT, AND TERMINATION

- 14.1 This Implementing Arrangement shall enter into force upon signature and remain in force so long as the S&T Agreement remains in force, unless terminated earlier pursuant to paragraph 14.3 of this Section.
- 14.2 This Implementing Arrangement may be amended at any time by written agreement of the Parties.
- 14.3 This Implementing Arrangement may be terminated at any time by written agreement of the Parties. Alternatively, this Implementing Arrangement may be

terminated at any time at the discretion of either Party upon six (6) months' written notice to the other Party.

14.4 All ongoing joint activities, projects and experiments not completed upon termination of this Implementing Arrangement may be continued until their completion under the provisions of this Implementing Arrangement.

DONE at Washington, in duplicate, this 17th day of July 2015.

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

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FOR THE MINISTRY OF EDUCATION, UNIVERSITIES AND RESEARCH OF THE ITALIAN REPUBLIC:

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