

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 Scientific Research and Development

Preamble

The Department of Energy of the United States of America (DOE) and the Centre National de la Recherche Scientifique of France (CNRS), hereinafter referred to as the Parties;

Sharing an interest in contributing to the advancement of knowledge by fostering basic scientific research and development in leading scientific disciplines;

Recognizing that scientific advancement is a lasting endowment for future generations;

Believing that cooperation based on equitable sharing of their respective scientific facilities, capabilities, and experiences would be of mutual benefit; and

Desiring to facilitate the establishment and continuation of joint scientific research projects and scholarly links, and to initiate and establish new ones in fields of mutual interest;

Hereby agree as follows:

Article 1 - Objective

- 1.1 The objective of this Agreement is to establish a framework for cooperation between the Parties in the fields of basic scientific research and development (R&D).
- 1.2 Cooperation between the Parties shall be on the basis of mutual benefit, equality, and reciprocity.

Article 2 - Areas of Cooperation

2.1 Areas of basic scientific research cooperation may include but are not limited to:

- Basic Sciences: Mathematics, Theoretical Physics, Atomic and Molecular Physics, Optics and Lasers, Condensed Matter Physics, and Chemistry;
- Computer Science and Information Technology;
- High Energy Physics;
- Life Sciences;
- Nuclear Physics;
- Particle Astrophysics and Cosmology; and
- Other areas of mutual scientific interest.

Article 3 - Forms of Cooperation

Cooperation under this Agreement may include the following forms:

- 3.1 Exchange of researchers and staff members;
- 3.2 Exchange of scientific and engineering information and results and methods of research and development;
- 3.3 Organization of and participation in seminars or other meetings on specific, agreed-upon topics in the areas listed in Article 2;
- 3.4 Short visits by specialist teams or individuals to the facilities of the other Party, subject to the prior agreement of that Party;
- 3.5 Assignment of the staff of one Party, its contractors, or subsidiaries to the facilities of the other Party, its contractors, or subsidiaries in order to participate in agreed-upon research, development, design, analysis, or other experimental activities;
- 3.6 Exchange of materials and equipment for testing;
- 3.7 Exchange of technology and engineering drawings as appropriate to the areas of cooperation and as agreed to by the Parties;
- 3.8 Joint planning to utilize existing R&D capabilities related to scientific research and development in which common interests will be defined;
- 3.9 Joint projects in which the Parties agree to share work and/or costs, subject to written agreement of the Parties; and,
- 3.10 Such other specific forms of cooperation as the Parties may agree.

Article 4 - Implementing Arrangements

When the Parties agree to undertake a form of cooperation set forth in Article 3 that may involve the sharing of costs or the creation of intellectual property, they shall conclude an Implementing Arrangement subject to this Agreement. Each Implementing Arrangement shall include provisions for carrying out the cooperation and shall cover such matters as scientific and technical scope, as well as other elements necessary to define the activity and the role of the Parties. Activities under Implementing Arrangements may involve, as appropriate, associated firms or laboratories of the Parties or their contractors and subsidiaries.

Article 5 - Management

- 5.1 The Parties shall establish a DOE/CNRS Joint Coordinating Committee (JCC) composed of an equal number of representatives from each Party to supervise the cooperative activities under this Agreement. The JCC shall be co-chaired by Principal Coordinators designated by each Party. The JCC may establish Technical Subcommittees to manage specific cooperative activities initiated under this Agreement.
- 5.2 The JCC shall meet each year, alternately in the United States and in France, or at such other times and places as the Parties may agree.
- 5.3 At its meetings, the JCC shall evaluate the status of cooperation under this Agreement. This evaluation may include a review of the past year's activities and accomplishments under this Agreement, a review of the activities planned for the coming year within each of the active areas of cooperation listed in Article 2, an assessment of the balances of exchanges, and a consideration of measures to correct any imbalances. In addition, the JCC shall consider and act on any major new proposals for cooperation.
- 5.4 Management of cooperation under Implementing Arrangements, as defined in Article 4, shall be specified in the respective Implementing Arrangement documents, and shall be in accordance with the policy guidelines established by the JCC.

Article 6 - Intellectual Property Rights and Business-Confidential Information

The protection and allocation of intellectual property and the protection of business-confidential information created or furnished in the course of cooperative activities under this Agreement shall be governed by the agreement effected by the exchange of diplomatic notes on intellectual property between the Government of the United States of America and the Government of France of June 6, 1997. The text of the Annex on Intellectual Property attached to the diplomatic notes is incorporated into this Agreement as Annex 1, which forms an integral part of this Agreement.

Article 7 - Security Obligations

Provision for security of information and transfer of technology are set forth in Annex II. Annex II constitutes an integral part of this Agreement.

Article 8 - Disclaimer

Information transmitted by one Party to the other Party under this Agreement shall be accurate to the best knowledge and belief of the transmitting Party, but the transmitting Party does not warrant the suitability of the information transmitted for any particular use or application by the receiving Party or by any third Party.

Article 9 - Legal Provisions

Each Party's activities under this Agreement shall be in accordance with its national laws and regulations. All questions related to the Agreement arising during its term shall be settled by consultations between the Parties.

Article 10 - General Provision

The ability of each Party to carry out the activities contemplated by this Agreement is subject to the availability of personnel and appropriated funds. Except when otherwise specifically agreed in writing, each Party shall bear its own costs resulting from cooperation under this Agreement.

Article 11 - Duration, Amendment, and Termination

- 11.1 This Agreement shall enter into force upon signature and shall remain in force for a period of five (5) years. This Agreement shall automatically renew for further five-year (5) periods unless either Party notifies the other in writing at least six (6) months prior to the expiration of the first five-year period or any succeeding five-year period of its intent to terminate the Agreement.
- 11.2 This Agreement may be amended or extended by written agreement of the Parties.
- 11.3 This Agreement may be terminated at any time at the discretion of either Party upon six (6) months' advance notification in writing by the Party seeking to terminate the Agreement.
- 11.4 Joint efforts and experiments not completed at the expiration or termination of this Agreement may, on agreement of the Parties, be continued until their completion under the terms of this Agreement.

DONE at Washington in duplicate, this 4th day of April, 2005, in the English and French languages, each text being equally authentic.

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



FOR THE CENTRE NATIONAL DE LA
RECHERCHE SCIENTIFIQUE OF FRANCE:



Annex I: Intellectual Property

Preamble

Pursuant to Article 6 of this Agreement;

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Agreement and relevant Implementing Arrangements. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Agreement and to seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Annex.

I-Scope

- I-A. This Annex is applicable to all cooperative activities undertaken by the Parties or by the relevant entities (hereafter "cooperative entities") pursuant to this Agreement, except as otherwise specifically agreed by the Parties or their cooperative entities.
- I-B. For purposes of this Agreement, "intellectual property" shall have the meaning found in Article 2 of the convention establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.
- I-C. This Annex addresses the allocation of rights, interests, and royalties between the Parties. Each Party shall ensure that the other Party or cooperative entities can obtain the rights to intellectual property allocated in accordance with the Annex. The allocation between a Party and participants on behalf of this Party in the cooperative activities, which shall be determined by the Party's laws and practices, shall not be altered or prejudiced by application of this Annex.
- I-D. Disputes concerning intellectual property arising under this Agreement should be resolved through discussions between the concerned participating institutions or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of UNCITRAL shall govern.
- I-E. Termination or expiration of this Agreement shall not affect the rights or obligations under this Annex.

II-Allocation of Rights

- II-A. Each Party, subject to the restrictions of Article III of this Annex, shall be entitled to a nonexclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, and publicly available reports directly arising under this Agreement. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named. Each Party or its

cooperative entities shall have the right to review a translation prior to public distribution.

II-B. Rights to all forms of intellectual property, other than those rights described in section II-A above, shall be allocated as follows:

II-B-1. Visiting researchers, for example, scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under the policies of the host institution, unless a specific agreement is or has been signed between the host and forwarding institutions. In addition, each visiting researcher named as an inventor shall be entitled to treatment as a national of the host country with regard to awards, bonuses, benefits, or any other rewards, in accordance with the policies of the host institution.

II-B-2(A). For intellectual property created during joint research, the Parties or their cooperative entities shall jointly develop a technology management plan either prior to the start of their cooperation, for example in research areas likely to lead rapidly to industrial applications, or within a reasonable time from the time a Party becomes aware of the creation of intellectual property. The technology management plan shall consider the relative contributions of the Parties and their cooperative entities, the benefits of exclusive or nonexclusive licensing by territory or for field of use, requirements imposed by the Parties' domestic laws, and other factors deemed appropriate. If needed, the technology management plan shall be jointly modified or completed in a timely fashion, subject to the approval of both Parties or their cooperative entities.

II-B-2(B). If the Parties or their cooperative entities cannot reach agreement on a joint technology management plan within a reasonable time not to exceed six months from the time a Party becomes aware of the creation of the intellectual property in question, each Party may designate one co-exclusive licensee to have world-wide rights to said intellectual property. Each Party shall notify the other two months prior to making a designation under this paragraph. When both Parties (or their licensees) exploit the intellectual property in a country, they shall share equally the reasonable cost of intellectual property protection in that country.

II-B-2(C). A specific program of research will be regarded as joint research for purposes of allocating rights to intellectual property only when it is designated as such in the relevant Implementing Arrangement, otherwise the allocation of rights to intellectual property will be in accordance with paragraph II-B-1.

II-B-2(D). In the event that either Party believes that a particular joint research project under this Agreement will lead, or has led, to the creation or furnishing of intellectual property of a type not protected by the applicable laws of one of the Parties, the Parties shall immediately hold discussions to determine the allocation of the rights to the said intellectual property; the joint activities in question will be suspended during the discussions, unless otherwise agreed by the Parties thereto. If no agreement can be reached within a three month period from the date of the request for discussions, the

Parties shall cease the cooperation in the project in question. Notwithstanding paragraphs II-B-2(A) and (B), rights to any intellectual property that have been created will be resolved in accordance with the provisions of Article I-D.

III-Business-Confidential Information

In the event that information identified in a timely fashion as business-confidential is furnished or created under the Agreement, each Party and its cooperative entities shall protect such information in accordance with applicable laws, regulations, and administrative practice. Information may be identified as business-confidential information if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential. Without prior written consent, neither of the Parties shall disclose any business-confidential information provided by the other Party except to appropriate employees and government personnel. If expressly agreed between the Parties, business-confidential information may be disclosed to prime and subcontractors. Such disclosures shall be for use only within the scope of their contracts with the Parties relating to cooperation under the Agreement. The Parties shall impose, or shall have imposed, an obligation on those receiving such information to keep it confidential. If one of the Parties becomes aware that, under its laws or regulations, it will be, or may reasonably be expected to become, unable to meet the non-disclosure provisions, it shall immediately inform the other Party. The Parties shall thereafter consult to define an appropriate course of action.

ANNEX II

SECURITY OBLIGATIONS

I. PROTECTION OF INFORMATION

Both Parties agree that no information or equipment requiring protection in the interests of national defense or foreign relations of either Party and classified in accordance with the applicable national laws and regulations shall be provided under this Agreement. In the event that information or equipment which is known or believed to require such protection is identified in the course of cooperative activities undertaken pursuant to this Agreement, it shall be brought immediately to the attention of the appropriate officials and the Parties shall consult concerning the need for and level of appropriate protection to be accorded such information or equipment.

II. TECHNOLOGY TRANSFER

The transfer of export-controlled information or equipment between the two countries shall be in accordance with the relevant laws and regulations of each Party to prevent the unauthorized transfer or retransfer of such information or equipment provided or produced under this Agreement. If either Party deems necessary, detailed provisions for the prevention of unauthorized transfer or retransfer of such information or equipment shall be incorporated into the contracts or Implementing Arrangements.

Implementing Arrangement No.1 under 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 Nuclear Physics Research

Article 1 - General

The purpose of this Implementing Arrangement (IA) is to establish between the Department of Energy of the United States of America (DOE) and the Centre National de la Recherche Scientifique of France (CNRS), hereinafter referred to as the Parties, areas of bilateral scientific collaboration focused on basic research and development in nuclear physics.

Cooperation under this Implementing Arrangement is subject to and governed by 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 Scientific Research and Development, signed on April 4, 2005, hereinafter referred to as the Agreement.

Article 2 - Objectives

The overall objectives for cooperation under this Implementing Arrangement are to:

1. Exchange information on the respective strategies of the Parties in basic nuclear physics research;
2. Promote collaboration between DOE and CNRS to improve fundamental knowledge by pursuing scientific research and development in low- and intermediate-energy nuclear physics, and relativistic heavy ion physics.

Article 3 - Areas of Cooperation

Cooperation under this Implementing Arrangement may include, but is not limited to, the following areas:

- Exchange of researchers, including students;

- Conceptual design, research and development, and construction of systems or subcomponents, including:
 - Detectors;
 - Accelerators and their applications;
 - Software;
 - Electronics;
 - Computing.
- Theoretical research and simulation works;
- Nuclear data compilation;
- Planning, evaluation and review activities;
- Participation in experiments;
- Specific collaborative projects covered under Memoranda of Understanding (MOU), between laboratories and grantees supported individually and/or jointly by DOE and CNRS, in areas such as: relativistic heavy-ion collision physics, intermediate energy hadronic physics and rare isotope facilities;
- Other areas of nuclear science as the Parties may agree.

Article 4 - Management

Management of this cooperation will be achieved as described below:

1. The Parties shall establish a Nuclear Physics Subcommittee (NPS) to the Joint Coordinating Committee (JCC) defined in Article 5 of the Agreement, composed of an equal number of representatives of each Party, to oversee the work under this Implementing Arrangement. The NPS shall meet annually or as deemed appropriate, and provide programmatic guidance to the work conducted under this Implementing Arrangement.
2. The NPS shall periodically report on its activities to the JCC, particularly in advance of meetings of the JCC.
3. Management of the actual cooperative projects undertaken under this Implementing Arrangement shall be defined in the MOUs or other written instruments executed between the participating laboratories and scientists.

Article 5 - Finance

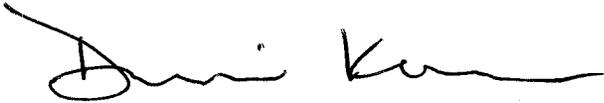
1. Except when the Parties agree otherwise in writing, each Party shall fund its participation in the cooperative program.
2. For exchanges of researchers and students, living expenses may be paid by the host country while travel expenses and salaries will be covered by the home institution. The NPS will review the exchange of personnel at its regular meetings to assure it is reasonably balanced between the Parties.

Article 6 - Duration and Termination

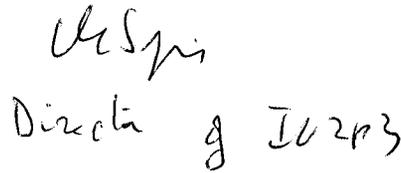
1. This Implementing Arrangement shall enter into force upon signature and shall remain in force for the duration of the Agreement.
2. This Implementing Arrangement may be amended by written agreement by the Parties.
3. Joint efforts and experiments not completed at the expiration or termination of this Implementing Arrangement may, by agreement of the Parties, be continued until their completion under the terms of the Agreement.
4. This Implementing Arrangement may be terminated at any time at the discretion of either Party, upon six months' advance notification in writing by the Party seeking to terminate it.

DONE at Washington in duplicate, this 4th day of April, 2005, in the English and French languages, each text being equally authentic.

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



FOR THE CENTRE NATIONAL DE LA
RECHERCHE SCIENTIFIQUE OF FRANCE:



U.S. 2005
Director of ICRP

Implementing Arrangement No.2 under 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 Particle Physics, Astrophysics and Cosmology

Article 1 - General

The purpose of this Implementing Arrangement (IA) is to establish between the Department of Energy of the United States of America (DOE) and the Centre National de la Recherche Scientifique of France (CNRS), hereinafter referred to as the Parties, areas of bilateral scientific collaboration focused on basic research and development in particle physics, astrophysics and cosmology.

Cooperation under this implementing Arrangement is subject to and governed by 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 Scientific Research and Development, signed on April 4, 2005, hereinafter referred to as the Agreement.

Article 2 - Objectives

The overall objectives for cooperation under this Implementing Arrangement are to:

1. Exchange information on the respective strategies of the Parties in particle physics, astrophysics and cosmology;
2. Promote collaboration between DOE and CNRS to improve fundamental knowledge by pursuing scientific research and development (R&D) in particle physics, astrophysics and cosmology.

Article 3 - Areas of Cooperation

Cooperation under this Implementing Arrangement may include, but is not limited to, the following areas:

- Exchange of researchers, including students;

- Conceptual design, research and development, and construction of systems or subcomponents, including:
 - Detectors;
 - Accelerators and their applications;
 - Software;
 - Electronics;
 - Computing.
- Theoretical research and simulation works;
- Planning, evaluation and review activities;
- Participation in experiments;
- Specific collaborative projects covered under Memoranda of Understanding (MOU) between laboratories and grantees supported individually and/or jointly by DOE and CNRS, in areas such as: accelerator physics, the physics of the Standard Model and beyond, computation related to high energy physics, particle astrophysics and cosmological observatories;
- Other areas of particle physics, astrophysics and cosmology as the Parties may agree.

Article 4 - Management

Management of this cooperation will be achieved as described below:

1. The Parties shall establish a Particle Physics, Astrophysics and Cosmology Subcommittee (PPACS) to the Joint Coordinating Committee (JCC) defined in Article 5 of the Agreement, composed of an equal number of representatives of each Party, to oversee the work under this Implementing Arrangement. The PPACS shall meet annually or as deemed appropriate, and provide programmatic guidance to the work conducted under this Implementing Arrangement.
2. The PPACS shall periodically report on its activities to the Joint Coordinating Committee, particularly in advance of meetings of the JCC.
3. Management of the actual cooperative projects undertaken under this Implementing Arrangement shall be defined in the MOUs or other written instruments executed between the participating laboratories and scientists.

Article 5 - Finance

1. Except when the Parties agree otherwise in writing, each Party shall fund its participation in the cooperative program.
2. For exchanges of researchers and students, living expenses may be paid by the host Party while travel expenses and salaries will be covered by the home institution. The PPACS will review the exchange of personnel at its regular meetings to assure it is reasonably balanced between the Parties.

Article 6 - Duration and Termination

1. This Implementing Arrangement shall enter into force upon signature and shall remain in force for the duration of the Agreement.
2. This Implementing Arrangement may be amended by written agreement by the Parties.
3. Joint efforts and experiments not completed at the expiration or termination of this Implementing Arrangement may, by agreement of the Parties, be continued until their completion under the terms of the Agreement.
4. This Implementing Arrangement may be terminated at any time at the discretion of either Party, upon six months' advance notification in writing by the Party seeking to terminate it.

DONE at Washington in duplicate, this 4th day of April, 2005, in the English and French languages, each text being equally authentic.

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



FOR THE CENTRE NATIONAL DE LA
RECHERCHE SCIENTIFIQUE OF FRANCE:



Director of JN2P3