

## **FRAMEWORK AGREEMENT**

BETWEEN

ITALIAN SPACE AGENCY

AND

INTERNATIONAL CENTER FOR RELATIVISTIC ASTROPHYSICS NETWORK

The Italian Space Agency (hereinafter referred to as ASI), based in Rome, Via del Politecnico snc, represented by its President Mr. Enrico Saggese

AND

The International Center for Relativistic Astrophysics Network (hereinafter referred to as ICRA Net), based in Pescara, Piazza della Repubblica 10 (C.F. 91080720682), represented by its legal Representative, the Director, Prof. Remo Ruffini, domiciled for his position at ICRA Net Headquarters,

hereinafter also referred to individually as "Party" and collectively as the "Parties"

### PROVIDED THAT

- ASI is a national public body with the task to promote, develop and spread, with the role of agency, the scientific and technological research applied to the space and aerospace fields and the development of innovative services, pursuing excellence goals, coordinating and managing national projects and the Italian participation in European and international projects. In the achievement of its tasks, promotes synergy between research Institutes, public administrations, universities and the enterprise world, using organizational models addressed to the development, participation and representation of the entire national scientific community of reference, pursuant to articles 1.2 and 3 of its Statute, issued in application of legislative decree 31 December 2009, n. 213 and in accordance with the provisions of the Legislative Decree 4 June 2003, 128;
- ASI, as expected by the National Research Program (NRP) and by the Three-year Plan of Activities (PTA), annually updated and adopted on the basis of its Ten-year Strategic Vision Document (DVS) in force, participates in the work of the Council of the European Space Agency (ESA), coordinates, finances and manages national projects and the Italian

participation in European projects of ESA or of the European Union as well as to international space programs;

- the Strategic Vision Document 2010-2020 and the current Three-Year ASI Plan of Activities expect many programs of exploration and observation of the Universe, divided into three main areas called "Exploration of the Solar System," "High Energy Astrophysics" and "Cosmology and Fundamental Physics ", funded by the available resources;
- ASI promotes and coordinates the presence of the Italian scientific community within the programs approved by European Space Agency, of which Italy is a member on the basis of the Convention of 1975 (Article 2, paragraph 2, letters c) and d) of the Statute of ASI) and under this Convention:
  - a. Italy is committed to participate in the ESA mandatory programs that expect the implementation of missions in which Italy must contribute with a share proportional to its GDP;
  - b. Italy enhances its adhesion to the missions of the mandatory Scientific Program of ESA, also through the data analysis made by ASDC (ASI Science Data Center);
  - c. Italy also takes part in other ESA optional programs, on the basis of the national interest and available resources;
- ICRA Net, pursuant to Law n. 31 of 10 February 2005 published in the G.U. 53 of 5 March 2005, is a research organization having legal personality under public international law, whose Founding Members, in addition to the Republic of Armenia, the Republic of Italy and the Vatican City State are the University of Arizona and Stanford in the U.S. and ICRA in Italy, and on 12 September 2005 also the Federal Republic of Brazil has been accepted as a member of ICRA Net;
- ICRA Net, in accordance with the Annual Scientific Program developed by the Scientific Committee and approved by the Steering Committee, promotes and develops research activity at national and international level in the field of relativistic astrophysics and the study of fundamental physical interactions, with applications in observations and in experiments developed in Space, on Earth and in underground laboratories, and also

promotes technology development as well as cooperation and exchanges in these areas with national and international scientific institutions;

- the Strategic Vision Document and the Annual Plan of ICRANet in force provide a strategic commitment of ICRANet in the fields of space and relativistic astrophysics and of fundamental physics, as well as in research and development activity which is essential to maintaining excellence at international level;
- ASI, under Article 4, paragraph 1, lett. a) its Articles of Association may enter into agreements and conventions;
- the ICRANet, pursuant to article 3, paragraph i) of its Statute may enter into agreements and conventions;
- ASI and ICRANet intend to promote effective technical and scientific cooperation, also at international level, for data analysis, their theoretical interpretation and the proposition of space missions;
- ASI and ICRANet intend to collaborate through the development of a data analysis center within ICRANet (ASI-ICRANet Science Data Center, AISDC), which can be used on the basis of a "mirror" of ASDC of ASI; this consents both real-time data analysis and theoretical feedback of ICRANet on modeling of galactic and extragalactic sources, and in the field of cosmology and fundamental physics;
- ASI and ICRANet are interested to activate a cooperation which ensures multi-year stability to the research activity in the field of exploration and observation of the universe and of space and relativistic astrophysics, finding means of coordination for better implementation of national and international scientific programs of common interest;

IT IS HEREBY AGREED WHAT FOLLOWS

ART. 1

(Preambles)

1.1 Preambles represent an essential and significant part of this Framework Agreement.

ART. 2

(Joint activities)

2.1 On the basis of binding international commitments made by the Italian Government and of national planning as in the preamble, ASI and ICRA Net activate synergies for the performance of their duties and for the implementation of activities related to projects of common interest with the aim of increase its respective value. Such common activities will focus on:

- development of a space data analysis center within ICRA Net (ASI-ICRA Net Science Data Center, AISDC), based on a "mirror" of ASDC of ASI;
- development of research and technology activity that allow the participation in national space research in physics, in astrophysics, with particular regard to relativistic astrophysics, and in planetary missions; special attention will be devoted to the conception of new research subjects and new missions in these areas;
- development of research activity in ultra-relativistic plasma physics with the presence of electron-positron pairs also on the basis of the data of Gamma-Ray Bursts; analysis of the dynamics of such plasmas in astrophysics and development of models for experiments on plasma physics;
- study of nuclear fusion processes in cosmology; particular attention will be paid to the observational cosmology consequences and to analysis and development of methods and tools for their evaluation;
- identification and characterization of theoretical and phenomenological relevancies connected with the structure of the fundamental physical interactions and their related unifying schedules;

- training activities in the fields of astrophysics and physics of fundamental interactions; coordination of scientific conferences, seminars for study and in-depth analysis, as well as communication and information activity toward their respective research facilities concerning actions taken under this Framework Agreement; high-performing computing and networks.

2.2 The activation of AISDC provided by Article 2 of the present Framework Agreement will be implemented with the support of the staff of ASDC. The subsequent management, maintenance and development of AISDC will be taken care by ICRA Net that will provide both the adequate scientific and technological staff and the logistical and technological necessary infrastructures.

2.3 The activities mentioned in the present Framework Agreement will not result in supplementary charges for ASI. Each party shall bear the expenses related to the use of its resources, to the staff and facilities that provides within the activities referred to in this Framework Agreement.

### ART. 3

#### (Implementation Agreement)

3.1 ASI and ICRA Net establish, through specific implementation agreements, operational plans for implementing the program.

3.2 The implementation agreements establish the ways of collaboration, human resources, equipment and financial resources made available to each other.

### ART. 4

#### (Liability)

4.1 Each party is exempted from any liability arising from work relations established by the other part within the activities referred to in this Framework Agreement.

4.2 Each party agrees to indemnify the other Party from any claim that may result from the implementation of this Agreement and its additional implementation agreements, and in particular from those that may be arise from its own staff or by persons in contact with it.

4.3 The implementation agreements define the specific guarantees that the parties will have to provide because of the activity regulated by them.

ART. 5  
(Coordination)

5.1 The coordination of their respective activities in areas of mutual interest is ensured by the reference person of the scientific activities in the ASI Board and by the Director of ICRANet, hereinafter referred to as Representatives of this Framework Agreement.

5.2 The two Representatives, assisted by the staff responsible for these matters both at ASI and ICRANet:

- organize the coordination and scheduling of activities of common interest to be submitted to the approval by the Board of ASI and by the Steering Committee of ICRANet;
- act for the implementation of a regular exchange of information and news on the activities of mutual interest in national and international contest;
- propose appropriate measures for the coordination of activities of mutual interest;
- prepare joint initiatives for the advertising, scientific exploitation and publication of the results of joint programs.

5.3 The proposals promoted by the Representatives, pursuant to the previous paragraph 5.2 and approved by ASI and ICRANet, may be part of the agreements referred to in article 3, subject to the approval of the Board of ASI and of the ICRANet Steering Committee.

ART. 6  
(Results)

6.1 Each Party shall remain the owner of all knowledge acquired before the entry into force of this Framework Agreement and declares the specific existence in relation to the specific topic of each implementing Agreement.

6.2 The property rights and the regulation of the rights of industrial exploitation of all the results obtained and / or made are defined in the implementation agreements, on the basis of the contribution provided by each Party.

6.3 Being the scientific results of the activities included in this Framework Agreement a result of joint activity, they will be commonly owned by the Parties and will be made available to the scientific community through publications in professional journals and other

distribution channels, also in accordance with the regulations of any possible Agreement for national and international collaboration.

6.5 In case of publications related to the activity indicated in these agreements of implementation, the Parties mutually undertake to involve the staff of the other party interested in participating actively in the creation of the publication itself, even after the expiry of each implementing Agreement.

The Representatives of each implementing Agreement, appointed by the parties, undertake themselves to a prompt and mutual exchange of information and documentation also in order to identify any possible patents and publications, both scientific and instructive, and every other form of divulgation of the technical and scientific results of the agreement itself.

#### ART. 7

(Duration)

7.1 The Present Framework Agreement has a term of five years from the date of signing, and may be renewed by an exchange of notes between the Parties prior to its expiry, for a further period of five years, subject to the approval of the competent Authority of each Party.

7.2 The Framework Agreement may be modified at any time by written agreement between the Parties, after approval by the competent Authorities of each Party.

#### ART. 8

(Termination)

8.1 Each Party may terminate this Agreement at any time by a registered letter notice with return receipt, to be sent to the other Party at least 60 prior the date of Termination.

#### ART. 9

(Privacy)

9.1 The information that the Parties will mutually exchange must be considered as confidential, they cannot be disclosed to third parties for any reason, without the express consent of the other Party or if required by Law.

ART. 10  
(Applicable Regulations)

10.1 The activities referred to in this Framework Agreement shall be regulated, where not explicitly provided, by the international rules.

ART. 11  
(Dispute)

11.1 Any dispute arising from the interpretation and / or application of this Framework Agreement and / or the implementation Agreements will be solved by an arbitral committee composed of three members appointed one by each party and the third one by mutual agreement or, failing that, by the President of the Court of Rome.

ART. 12  
(Information and data processing)

12.1 In accordance with the provisions of Legislative Decree n. 30 June 2003, N. 196, the Parties declare that they have been informed about the terms and purposes of use of personal data in automated processing or data on hard copy for the purposes of implementation of this Framework Agreement. The parties declare also that the data provided with this Framework Agreement are correct and correspond to the truth, relieve each other from any and all liability for mistakes or compiling errors resulting from a wrong attribution of such data in the electronic or paper archives.

12.2 Pursuant to Legislative Decree n. 196/2003, this processing of data will be characterized by correctness, lawfulness and transparency and in compliance with safety standards.

12.3 The implementation agreements expect specific conditions for implementing the requirements of this article.



ART. 13  
(Final provisions)

13.1 This Framework Agreement is edited in two originals and is subject to registration only in case of use by and at the expense of the party concerned.

ASI  
Il Presidente  
Ing. Enrico Saggese

ICRANet  
Il Direttore  
Prof. Remo Ruffini

19-09-2013