

Memorandum of Understanding
between
The International Union of Pure and Applied Physics (IUPAP)
and
The International Union of Crystallography (IUCr)
and
The Abdus Salam International Centre for Theoretical Physics (ICTP)

for the Operation of
Lightsources for Africa, the Americas, Asia, Middle East and Pacific
(LAAAMP)

This Memorandum is between:

THE INTERNATIONAL UNION OF PURE AND APPLIED PHYSICS, (hereinafter “IUPAP”); IUPAP Singapore Ltd, Nanyang Technological University, #04-09, 60 Nanyang View, Nanyang Executive Centre, Singapore 639673 with a likely change of address to Geneva, Switzerland in the near future;

The International Union of Crystallography (hereinafter “IUCr”), 5, Abbey Square, Chester, Cheshire, CH1 2HU, United Kingdom;

“The Abdus Salam International Centre for Theoretical Physics” (hereinafter “ICTP”), a category 1 United Nations Educational, Scientific and Cultural Organization (hereinafter “UNESCO”) institute, operating under the tripartite agreement between the Italian Government, the International Atomic Energy Agency (IAEA) and UNESCO, with its registered office in Trieste, Strada Costiera, 11-34151, ITALY, Italian Fiscal Code 80033730328, www.ictp.it, email director@ictp.it, and which has as its legal representative Director Prof. A. Dabholkar;

which shall hereinafter be referred to as the “Partners”.

I. Aims

In order to promote the utilisation of crystallography and advanced light sources (synchrotron light sources and undulator-based free-electron lasers) for research and training in targeted regions of the world, the International Union of Pure and Applied Physics (IUPAP), the International Union of Crystallography (IUCr), and the Abdus Salam International Centre for Theoretical Physics have led a collaboration of advanced light sources (AdLSs) and other international organizations to execute a number of activities and programs, which were funded by a 300 thousand Euro grant from the International Science Council (ISC) and its predecessor, the International Council for Science (ICSU). These activities and programs empower researchers in those targeted regions of the world to address the many socioeconomic challenges that their governments are trying to solve.

The targeted regions of the world include the following:

1. Africa
2. Mexico
3. Caribbean
4. Southeast Asia
5. Middle East
6. Pacific Islands.

Under this Memorandum of Understanding (MoU), IUPAP, IUCr, and ICTP shall continue leading the collaboration to undertake a variety of activities and programs, including the following:

- A. Continually execute, and update as needed, a Strategic Plan for each targeted region.
The Strategic Plans shall be based upon a variety of factors, including surveys of crystallography and advanced light source usage; the status of existing infrastructures; and government priorities, such as decisions to invest in these areas.
- B. Conduct an advanced light source (AdLS)/crystallography Colloquium Programme.
This programme shall send experienced researchers to the targeted regions and professional meetings around the world to advertise *LAAAMP*'s programs and expose researchers to the advantages of employing crystallography and AdLSs in their research and training programmes. This will enhance their research outputs and better their chances of solving many of their countries' socioeconomic challenges.
- C. Assist in establishing crystallography training schools in the targeted regions.
The IUCr has partnered with UNESCO for a number of years in establishing the IUCr-UNESCO OpenLabs in developing countries to train students in crystallography. Based upon that model and utilizing contacts made via the Colloquium Programme, the Executive Committee shall partner with the IUCr and UNESCO to establish such crystallography training programmes in the targeted regions.
- D. Continually update and disseminate an AdLS/crystallography Informational Brochure.
Many people, even senior researchers, are not aware of the many advantages of utilising AdLSs in their research and training. Thus, the Brochure will spread knowledge about both AdLSs and crystallography to researchers, governmental officials and the public. To target all groups, the Brochure will avoid using highly technical language, but rather explain the concepts in terms a layperson could understand.
- E. Send Faculty-Students (FAST) Teams to Partner AdLSs for 2-month visits, with some returning in subsequent years for another 2 Months.
AdLSs are revolutionizing a myriad of fundamental and applied sciences, including agriculture, biology, biomedicine, chemistry, climate and environmental eco-systems science, cultural heritage studies, energy, engineering, geology, materials science, nanotechnology, palaeontology, pharmaceutical discoveries, and physics, with an accompanying impact on sustainable industry. Thus, the FAST Team Programme has the

goal of reaching out to researchers in many fields and arranging for them to obtain hands-on experience in performing research at *LAAAMP*'s AdLS partners.

F. Operate a Sample Mail-In Program for AdLS Data Acquisition.

The goal of this programme, called Synchronizing Partners to Advance Research Characterization (SPARC), is to allow FAST Team researchers and others to continue utilizing AdLSs from their home institutions.

II. Executive Committee

- A. Each Partner will nominate one member in the Executive Committee (EC)
- B. The EC will appoint up to three additional members chosen among the leading international experts in the scientific themes of *LAAAMP*.
- C. Any nominees for EC membership will be sought in light of equities of gender, ethnicity and geographical residence.
- D. The Chair of the EC shall be chosen by its members to serve two-year terms.
- E. The EC shall meet approximately each month via videoconference.
- F. All activities and programs of the EC shall be decided by its members.
- G. All EC decisions shall be by a consensus of its members as much as possible. On rare occasions, a majority vote shall decide.
- H. Any decision of the EC can be overturned by any one of the Partners.
- I. The EC shall facilitate communications among the Partners by, among other things, developing and maintaining a Website.

III. Commitments of the Partners

Each Partner shall do the following:

- A. Approve the appointment of members to the Executive Committee (EC).
- B. Share with the EC all relevant information that can help promote the utilisation of crystallography and advanced light sources in research and training.
- C. Make a contribution to *LAAAMP*'s common funds decided on a year-by-year basis and to be determined annually by mutual agreement of the Partners. The initial contributions shall be made within three (3) months of signing this MoU and future contributions will be made between 01 January and 28 February each year thereafter.

- D. Share communications relevant to the utilization of crystallography and advanced light sources for research and training with its members and through its networks, by all means at its disposal, including social network accounts, Website, newsletters and journals, both electronic and in print.

IV. Finances

LAAAMP shall only handle common funds for a mutualized budget.

To avoid *LAAAMP* having to set up its own bank account, which would entail a complex administrative procedure, *LAAAMP*'s funds shall be received by, and managed according to the regulations of, one of the Partners, who shall account separately for receipts and expenses relating to *LAAAMP*'s activities and programs.

In some cases, projects shall be led by a collaborating organization, which shall be responsible for its budget and steering. This collaborating organization shall supply or raise the funds for the project.

V. Open Access

Partners agree that an open access model of communication is best adapted to its core purposes.

All content and documents produced for projects and initiatives endorsed by *LAAAMP* shall use a Creative Commons License. This license allows a wide non-commercial sharing of materials in unaltered form.

It is the responsibility of the producers of any content and any documents to obtain from the authors, designers, inventors (whether or not they are its employees), the authorization for the relevant forms of reproduction, representation, adaptation or translation license, without time limitation.

VI. New Partners

New Partners shall join this MoU with the unanimous approval of all existing Partners.

VII. Settlement of Disputes

Notwithstanding the foregoing, where ICTP is involved in any dispute arising out of or in connection with the present Agreement, which cannot be solved amicably, such dispute shall be finally settled under UNCITRAL Rules of Arbitration.

VIII. Privileges and Immunities of IUPAP, IUCr, and ICTP.

Nothing in connection with this Agreement shall be construed as a waiver of any right and/or privilege that the IUPAP enjoys under: (i) Singaporean Law; ii) Italian Law; iii) Swiss Law; and iv) any other customary rule of international law or other rule. Moreover, nothing that is contained

in this Agreement or related to it may grant any privilege or immunity to the other Parties of this contract nor their respective officials.

Nothing in connection with this Agreement shall be construed as a waiver of any right and/or privilege that the IUCr enjoys under: (i) Swiss Law; ii) any other customary rule of international law or other rule. Moreover, nothing that is contained in this Agreement or related to it may grant any privilege or immunity to the other Parties of this contract nor their respective officials.

Nothing in connection with this Agreement shall be construed as a waiver of any right and/or privilege that the ICTP and UNESCO enjoy under: (i) the Agreement between the ICTP and the Italian Republic; ii) the Tripartite Agreement establishing the ICTP; (iii) any other customary rule of international law or other rule. Moreover, nothing that is contained in this Agreement or related to it may grant any privilege or immunity to the other Parties of this contract nor their respective officials.

IX. Use of the Name, Acronyms or Official Logo of IUPAP, IUCr, ICTP and UNESCO,

Unless authorized in writing by the IUPAP, in conformity with its rules and regulations concerning the use of the name and logo, the Partner shall not use the name, acronym or official logo of IUPAP, or any abbreviation of the name of IUPAP, for advertising or any other purposes.

Unless authorized in writing by the IUCr, in conformity with its rules and regulations concerning the use of the name and logo, the Partner shall not use the name, acronym or official logo of IUCr, or any abbreviation of the name of IUCr, for advertising or any other purposes.

Unless authorized in writing by the ICTP and UNESCO, in conformity with its rules and regulations concerning the use of the name and logo, the Partner shall not use the name, acronym or official logo of UNESCO, or any abbreviation of the name of UNESCO, for advertising or any other purposes.

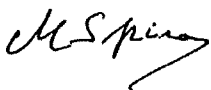
X. Duration and Termination of Partnership

The present Memorandum of Understanding will come into effect on the date of the last signature and will remain valid for a period of 3 (three) years. Any modification of this Memorandum of Understanding will require written consent from all Parties.. A partner may withdraw upon request to *LAAAMP* with six months' notice.

Date: 01 October 2021


On behalf of Partner IUPAP, International Union of Pure and Applied Physics

Professor Michel Spiro
President




On behalf of Partner IUCr, International Union of Crystallography

Dr Hanna Dabkowska
President

A handwritten signature in blue ink, appearing to read 'Hanna Dabkowska', written in a cursive style.

On behalf of Partner, ICTP, Abdus Salam International Centre for Theoretical Physics

Professor Atish Dabholkar
Director

A handwritten signature in blue ink, appearing to read 'Atish Dabholkar', written in a cursive style.