



On behalf of the President Michel Spiro and the Executive Council  
**Season's Greetings and Happy New Year**

Regional e-conference

Pakistan

January 18th, 2022



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## Mission:

**IUPAP** (<http://iupap.org/>)

Michel Spiro  
*President*

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*“To assist in the worldwide development of physics, to foster international cooperation in physics, and to help in the application of physics toward solving problems of concern to humanity”.*

*Updated: Dec 4, 2019*

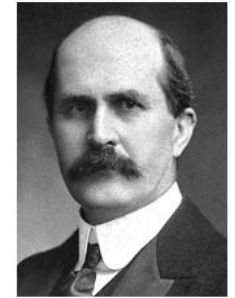


International Union of Pure and Applied Physics

### Further IUPAP principles:

- Foster **openness and inclusiveness** in physics;
- Promote **free circulation of physicists** (and of data?);
- Ensure **integrity and credibility**;
- Promote physics as **a building block of innovation and multidisciplinary** research;
- Promote **physics** as an essential tool **for development and for sustainability**;

# 1922



William Bragg  
First IUPAP  
President

## The Thirteen

1. Belgium
2. Canada
3. Denmark
4. France
5. Holland
6. Japan
7. Norway
8. Poland
9. Spain
10. Switzerland
11. United Kingdom
12. United States of America
13. Union of South Africa

## The Ten

- W. Bragg, president
- M. Brillouin
- O.M. Corbino
- M. Knudsen
- M. Leblanc
- R.A. Millikan
- H. Nagaoka
- E. Van Aubel, vice-présidents
- H. Abraham, secretary

**First general assembly in 1923**

# Members (60)

Algeria  
Argentina  
Australia  
Austria  
Belgium  
Brazil  
Canada  
Chile  
China: Beijing  
China: Taipei  
Colombia  
Costa Rica  
Croatia  
Cuba  
Cyprus  
Czech Republic  
Denmark  
Estonia  
Ethiopia

Finland  
France  
Germany  
Ghana  
Greece  
Hungary  
India  
Iran  
Ireland  
Israel  
Italy  
Japan  
Korea  
Latvia  
Lithuania  
Mexico  
Netherlands  
New Zealand  
Norway

Pakistan  
Peru  
Philippines  
Poland  
Portugal  
Romania  
Russia  
Saudi Arabia  
Senegal  
Singapore  
Slovak Republic  
Slovenia  
South Africa  
Spain  
Sweden  
Switzerland  
Tunisia  
UK  
USA

**Bulgaria, Egypt,  
Jordan, Uruguay  
joined recently**

**Corporate  
Associate  
Members are  
being considered**

**Four Regional  
Physics Society  
(American,  
African, Asian  
Pacific)  
are observers**



# Governance

- Governed according to the New Statutes and Bylaws of the International Union of Pure and Applied Physics (as adopted by the General Assembly, 2021) to become Articles and Internal Rules as soon as IUPAP get the legal status of an NGO as an Association under Swiss Law located in Geneva with the Administrative Office in Trieste



# Governance:

## The General Assembly

The General Assembly of all members is the highest governing body of the Union. It:

- Creates and amends these statutes (requires a two-thirds majority of those present).
- Sets and amends the procedural bylaws (requires a three-fifths majority of those present).
- Elects the Executive Council that oversees Union activities between General Assemblies.
- Elects members of its Commissions.
- Sets the members' dues.



# Governance:

## The Executive Council

The Executive Council has all of the authority of the General Assembly between General Assemblies (every 3 years) except for certain items specified in the statutes, subject to ratification at the next General Assembly. It may fill vacancies in the Commissions that occur between General Assemblies.

# Commissions

- The first scientific commission, on Units, was established in 1931 at the third General Assembly.
- Currently there are 18 Commissions.
- Organize the major International conferences in their field; and award Young Scientist Prizes

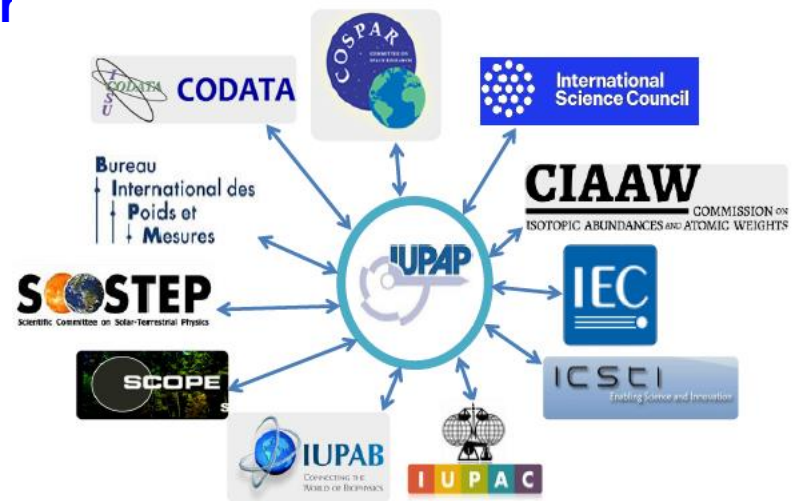


- Symbols, Units, etc (C2)
- Statistical Mechanics (C3)
- Astroparticle Physics (C4) New name
- Low Temperature Physics (C5)
- Biological Physics (C6)
- Semiconductors (C8)
- Magnetism (C9)
- Condensed Matter (C10)
- Particles and Fields (C11)
- Nuclear Physics (C12)
- Physics for Development (C13)
- Physics Education (C14)
- Atomic Molecular and Optical Physics (C15)
- Plasma Physics (C16)
- Laser Physics and Photonics (C17)
- Mathematical Physics (C18)
- Astrophysics (C19)
- Computational Physics (C20)

# Affiliated commissions

- International committees or organizations of physicists, with their own administrative structure, who wish to join IUPAP commissions
- Currently there are 4 +2 affiliated commissions
- Participate in IUPAP activities, endorse IUPAP principles

- International Commission for Optics (AC1)
- International Commission on General Relativity and Gravitation (AC2)
- International Commission on Acoustics (AC3)
- International Commission on Medical Physics (AC4)
- International Association of Physics Students (AC5 New)
- Affiliated Commission on the History of Physics (AC6)



# Working Groups



**WG1: International Committee for Future Accelerators (ICFA)**

**WG2: Communication in Physics**

**WG5: Women in Physics**

**WG7: International Committee on Ultrahigh Intensity Lasers (ICUIL)**

**WG9: International Cooperation in Nuclear Physics (ICNP)**

**WG10: Astroparticle Physics International Committee (ApPIC)**

**WG11: Gravitational Wave International Committee (GWIC)**

**WG12: Energy**

**WG13: Newtonian Constant on Gravitation**

**WG14: Accelerator Science**

**WG15: Soft Matter**

**WG16: Ethics (New)**

**WG17: Quantum (New)**

Some working groups have had close links with working groups of the OECD Global Science Forum



The Working Group on Women in Physics



# CONFERENCES

IUPAP sponsors and endorses ~**50 conferences per year**:

- Very large, medium size, specialized
- everywhere with a special attention to **developing countries**

Requirements are:

- **scientific interest**
- **worldwide attendance with no a priori restriction or difficulty to attend**
- **inclusiveness and diversity**



# Early Career Scientist Prize Awards

- ❖ **The Early Career Prize** is granted by IUPAP on the recommendation of a Commission or an Affiliated Commission.
- ❖ The award consists of a **certificate, medal and a monetary award.**
- ❖ A **presentation** also takes place at an international conference sponsored through the commission.
- ❖ **192 prizes awarded between 2006 and 2018!**

## IUPAP YOUNG SCIENTIST PRIZES 2017

### IUPAP Young Scientist Prize in Laser Physics and Photonics (C17)



#### (Applied Aspects)

##### Igor Aharonovich

*"For his outstanding contributions to research on quantum emitters in v*

*A/Prof Aharonovich is currently an academic at the University of Techn leads the Nanophotonics research group. Previously, he was a postdoct United States; following a PhD (2010) at University of Melbourne, Melbo (2007) from Technion – Israel Institute of Technology, Israel.*



#### (Fundamental Aspects)

##### Mohsen Rahmani

*"For his outstanding contributions to light-matter interactions at nanosc via metallic, dielectric and semiconductor nanostructures and metas extending nonlinear optics to nanoscale".*

*Dr Rahmani is currently an Australian Research Council Discovery Ear Australian National University, Canberra Australia. Until recently, he w Laboratory, Imperial College London, United Kingdom; following a PhD fr Singapore (2013).*

# Gender Gap

How to Measure It?

How to Reduce It?

Now -> Standing  
Committee on  
Gender Equality in  
Sciences



- ❖ The International Mathematical Union (IMU) leads the “Gender Gap in Science” Project, which is currently carried on with the participation of IUPAP and many other unions and with the financial support of the International Council of Science and the union partners.  
Silvina Ponce Dawson, Marie-Francoise Roy and June Barrow-Green
- ❖ The aim of the Project is to provide data to be able to analyze the gender gap in mathematical, computing and natural sciences, paying particular attention to regional differences. Moreover, the project aims to provide easy access to material proven to be useful in encouraging girls and young women to study science.

# LAAAMP Project (C13)



**Utilisation of Light Source and Crystallographic Sciences to Facilitate the Enhancement of Knowledge and Improve the Economic and Social Conditions in Targeted Regions of the World**



LAAMP Colloquium presentation by Prof. Diego G. Lamas at the OpenLab Inaugural Ceremonies in San José, Costa Rica, 4 December 2017



# Newsletter



# 2022/ 2023 Centenary of IUPAP

## IYBSSD

June 2022/June 2023

### International Year of Basic Sciences for Sustainable Development

Basic Sciences under the spotlight

*Basic Sciences are a key tool to provide a multi-cultural dialogue, with "scientific diplomacy" a known and demonstrated means to contribute to a more peaceful world*



International  
Science Council



The Abdus Salam  
International Centre  
for Theoretical Physics



JOINT INSTITUTE  
FOR NUCLEAR RESEARCH



<https://www.iybssd2022.org/>

**You are all invited to celebrate IUPAP  
Centenary and the International Year  
of Basic Sciences for Sustainable  
Development in 2022 and 2023, by  
participating to and creating all sort of  
events!!**