

Progress report on IUPAP Centenary

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C&CC, October 2019

Recap of initial ideas

- Idea is to split the work around the following initiatives:

- 1. The Centennial Symposium**
- 2. Publicity material on the Centenary (&IUPAP)**
- 3. History of IUPAP**
- 4. Satellite events elsewhere in the world**
- 5. ...?**

The Centennial Symposium (I)

Venue, timing and format

- In Geneva (CERN?) in the fall of 2022 as one of the initiatives for the International Year of Basic Sciences for Developments (IYBSD)
- Our resources are modest, so it seems important to have the support from a large institution
- See, e.g., what the IAU (International Astronomical Union) and the IUPAC are doing to celebrate their centenary this year:

<https://www.iau-100.org>

<https://iupac.org/100/>

(PS: Our web pages would benefit from a general 'relooking')

The Centennial Symposium (II)

Venue, timing and format

- CERN has recently launched the **Science Gateway**, a new futuristic building designed by world-renowned architect Renzo Piano, entirely funded through external donations. Science Gateway will be a centre for scientific education and outreach targeting the general public of all ages.
- The idea is to inaugurate it with the IUPAP celebrations as well as with events related to the IYBSD. This would greatly amplify the impact of our event. At the same time, having such a target is also useful for CERN.
- Idea extensively discussed with CERN management
- A fallback solution could be to organize a symbolic event at the Palais de Nations and then use other facilities such as the Geneva's International Conference Center (CICG).

Science Gateway



Science Gateway



The Centennial Symposium (III)

- Possible themes (linking with the IYBSD):
 - Physics as a building block of basic sciences
 - Physics as a motor for innovation, technology & economic development
 - Education (active learning of physics) for boys and girls, e.g. invite the commissions to prepare some small “portable” experiments
 - Physics and multicultural dialogue
 - Physics and global challenges
 - Promoting gender equality in science

The Centennial Symposium (IV)

- Join forces with the Wright Science Colloquia, held every two years at the University of Geneva, see <https://colloque.ch/en/introduction-2/>
 - Timing would match and they have funding and a well-run organization with public talks (one per evening over a week; 2018's theme was Gravity), an event for the younger public and Sound&light show.
 - I met with the organisers of the Colloquia and they are interested in joining forces

Publicity material on Centenary

How can we make the Centenary (and IUPAP!) more visible?

- Worked on a **presentation and logo & posters**, with help of a professional graphic designer from World Scientific
- All publicity material collected in a common dropbox depository

Proposal for the logo



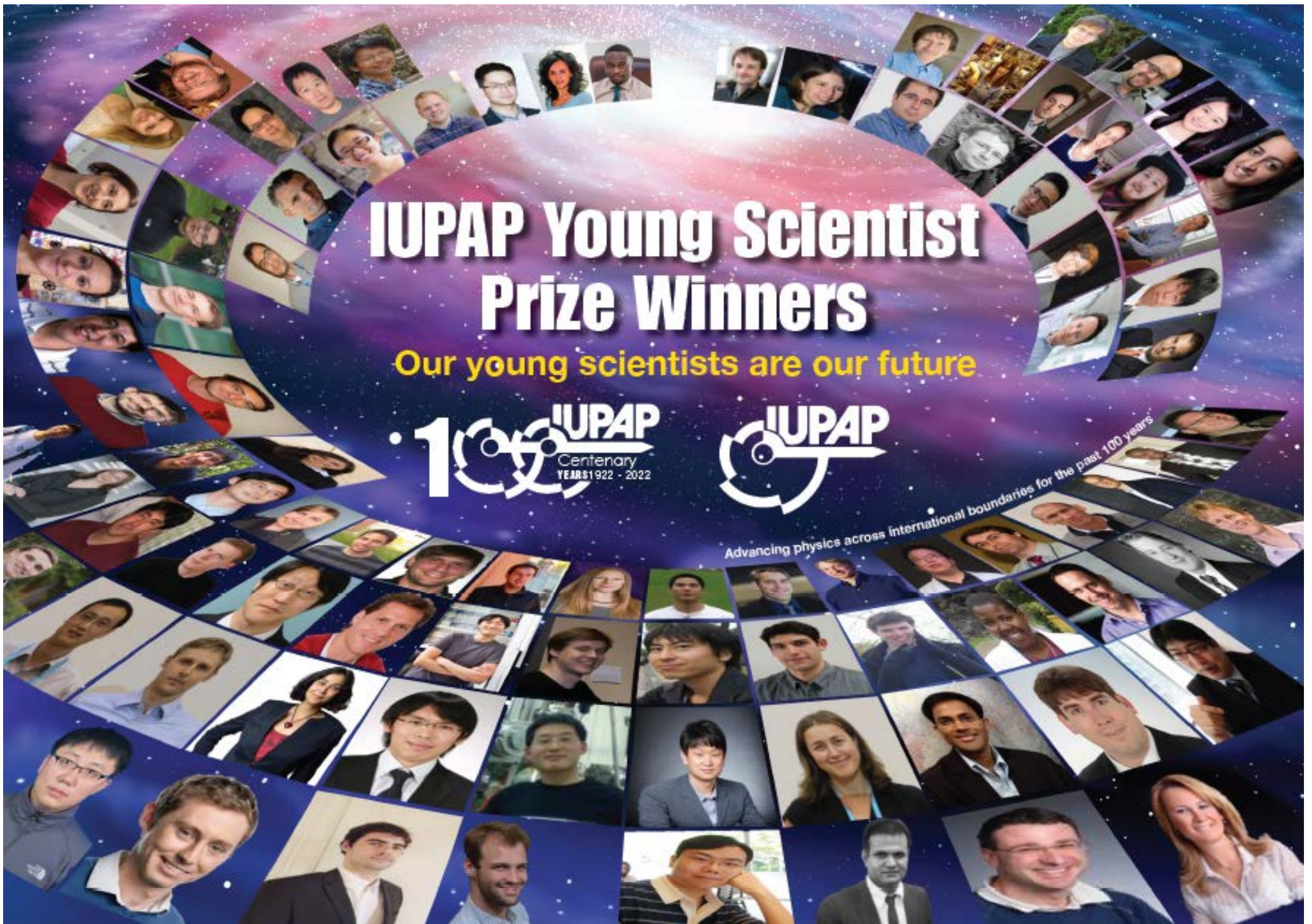
Some poster ideas

IUPAP Young Scientist Prize Winners

Our young scientists are our future



Advancing physics across international boundaries for the past 100 years





IUPAP Young Scientist Prize Winners Our young scientists are our future

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Advancing physics across international boundaries for the past 100 years



57 MEMBER
TERRITORIES

18

INTERNATIONAL COMMISSIONS

C1: Commission on Policy and Finance
 C2: Commission on Symbols, Units, Nomenclature, Atomic Masses & Fundamental Constants
 C3: Statistical Physics
 C4: Astroparticle Physics
 C5: Low Temperature Physics
 C6: Biological Physics
 C8: Semiconductors
 C9: Magnetism
 C10: Structure and Dynamics of Condensed Matter
 C11: Particles and Fields
 C12: Nuclear Physics
 C13: Physics for Development
 C14: Physics Education
 C15: Atomic, Molecular, and Optical Physics
 C16: Plasma Physics
 C17: Laser Physics and Photonics
 C18: Mathematical Physics
 C19: Astrophysics
 C20: Computational Physics

4

AFFILIATED COMMISSIONS

AC1: International Commission for Optics
 AC2: International Commission on General Relativity & Gravitation
 AC3: International Commission for Acoustics
 AC4: International Commission on Medical Physics

13

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 of Gravitation
 WG14: Accelerator Science
 WG15: Soft Matter
 WG16: Industry
 WG17: Centenary

“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”

2022

The yearlong CENTENARY celebrations will:

- Increase awareness of physics discoveries and the close ties among physicists at research centres globally.
- Stimulate worldwide interest in physics and science, as a tool for education and a motor of innovation, technology & economic development.
- Reach out to the global physics community, national science organisations, policy-makers, societies, students, families and the general public.

Contact Us



INTERNATIONAL UNION OF PURE AND APPLIED PHYSICS



18 Commissions
4 Affiliate Commissions
13 Working Groups

General Relativity & Gravitation *Acoustics* *Medical Physics*
Mathematical Physics *Astrophysics* *Computational Physics*
Policy & Finance *Low Temperature Physics* *Semiconductors* *Optics*
Symbols, Units, Nomenclature, Atomic Masses & Fundamental Constants *Plasma Physics*
Statistical Physics *Astroparticle Physics* *Particles & Fields* *Laser Physics & Photonics*
Biological Physics *Magnetism* *Structure & Dynamics of Condensed Matter* *Nuclear Physics*
Physics for development *Physics for Education* *Atomic, Molecular & Optical Physics*

Projects supported



Conference Sponsorship

IUPAP sponsors and endorses conferences to, foster active communication within the physics community and beyond, with special attention to those held in developing countries



Young Scientist Award



Awarded to 3 young scientists from each commission per term.

Almost 200 prizes have been awarded in the last 10 years

Inter Union Relations

International Science Council INTERNATIONAL COUNCIL FOR SCIENTIFIC AND TECHNICAL INFORMATION
INTERNATIONAL UNION FOR PURE AND APPLIED BIOPHYSICS
 COMMISSION ON ISOTOPIC ABUNDANCES AND ATOMIC WEIGHTS COMMITTEE ON SPACE RESEARCH
INTERNATIONAL ELECTROTECHNICAL COMMISSION
 INTERNATIONAL UNION OF PURE AND APPLIED CHEMISTRY SCIENTIFIC COMMITTEE ON PROBLEMS OF THE ENVIRONMENT
 Bureau International des Poids et Mesures
 SCIENTIFIC COMMITTEE ON SOLAR-TERRESTRIAL **COMMITTEE ON DATA FOR SCIENCE AND TECHNOLOGY**

Contact Us

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Publicity material on Centenary

- Prepare dedicated **leaflets** (one page) with mission statement and facts&figures from each commission and WGs on one side and general IUPAP info on the other.

Goals:

- To prepare a little booklet for the Centenary. Still quite a few holes and very mixed content. Work necessary to fill the gaps and have more homogeneous content and look&feel.
- To distribute leaflets to participants of IUPAP-sponsored conferences (~35 per year) together with conference material.
- **Proposal:** we provide the "back page" with the general IUPAP info and you fill in the front page with relevant facts about your commission/wg relevant for your conference. Successful example from C14!

Leaflets



Your Commission

To be filled by you!



INTERNATIONAL UNION OF PURE AND APPLIED PHYSICS

“Advancing Physics across International boundaries for the past 100 years”

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- WG17: Centenary



57 Member Countries

Inter Union Relations



Aims:

- to stimulate and promote international cooperation, communication, research and education in physics;
- To foster inclusiveness and diversity in physics;
- To uphold openness, honesty and integrity in the practice, application and promotion of physics;
- To support the free circulation of scientists;
- To promote international agreements on symbols, units and nomenclature; and cooperating with other organizations on disciplinary and interdisciplinary problems.
- To help in the application of physics toward solving problems of concern to humanity.
- To sponsor suitable international meetings and to assist organizing committees

Conference Sponsorship

Each year, IUPAP sponsors and endorses ~ 50 conferences annually with special attention given to those held in developing countries.



100 IUPAP Centenary 1912-2022

2022 Centenary Celebrations

The year-long CENTENARY celebrations will:

- Increase **awareness** of physics discoveries and the close ties among physicists at research centres globally.
- Stimulate **worldwide interest** in physics and science, as a tool for education and a motor of **innovation, technology & economic development**.
- **Reach out** to the global physics community, national science organisations, policy-makers, societies, students, families and the general public.

Young Scientist Awards Commission Awards

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History of IUPAP

- Idea is to profit from the occasion to make order in the IUPAP archives and digitize them.
- A lot of very interesting material already available on the common dropbox repository. This material should be catalogued and some of it could be posted on the web as “stories”. Very interesting book on IUPAP “Physics 50 years later” (Article on “The unity of physics” by E.Amaldi)
- The idea of publishing a “Centenary book” with the help of a professional historian is at the moment “dormant”. Interested and qualified person identified (Research Scholar at the Max Planck Institute for the History of Science in Berlin), however he failed to obtain a grant to cover his salary not successful.

Other ideas

- **Satellite events.** Use IUPAP-sponsored conferences as vehicles to celebrate the Centenary and the IYBSD, e.g. having dedicated plenary talks (for free). Condition to sponsorship?
- ‘Local’ initiatives are encouraged. IUPAP will act as an ‘umbrella’ for these various initiatives, however, things will not happen unless YOU promote them!
- **2023 General Assembly**, in Paris, 100 year after the first General Assembly (1923 – Paris)