

IAU100: Uniting Our World to Explore the Universe

Jorge Rivero Gonzalez

IAU100 coordinator
rivero@strw.leidenuniv.nl

Sze-leung Cheung

IAU International Outreach Coordinator (IAU/NAOJ)
cheungszleung@oao.iau.org

Ewine van Dishoeck

IAU President-Elect
IAU100 Task Force Chair
ewine@strw.leidenuniv.nl

Pedro Russo

Leiden University
russo@strw.leidenuniv.nl

On behalf of the IAU100 Task Force.

In 2019, the International Astronomical Union (IAU) will celebrate its 100th anniversary. To commemorate this milestone, the IAU will organise a year-long celebration to increase awareness of a century of astronomical discoveries as well as to support and improve the use of astronomy as a tool for education, development and diplomacy under the central theme *Uniting our World to Explore the Universe*.

The centennial celebrations will stimulate worldwide interest in astronomy and science and will reach out to the global astronomical community, national science organisations and societies, policy-makers, students, families and the general public. The IAU100 activities will be conducted at the local, regional, national and international level. The IAU has set up the IAU100 Secretariat, which is preparing a comprehensive programme of flagship initiatives to reach target audiences worldwide through the IAU National Outreach Contact points¹ and national astronomical societies.

IAU100 Flagship Programmes

The IAU100 celebration will be supported by eight flagship programmes. These are global activity programmes on specific themes which will help achieve IAU100's main goals and reach its target audiences.

1. IAU100 Celebrations

By organising different events, the IAU will bring together high-level representatives, policy-makers and astronomers to discuss the potential of astronomy as a tool for development, education and diplomacy and to raise awareness about the IAU's coordinating role for the global astronomical community over the past century.

2. Astronomy for Society

This programme will focus on highlighting the importance of astronomy in society. As

one of the oldest sciences, astronomy is part of every culture's history. Astronomy not only transcends borders, but actively promotes collaborations around the world. Given its technological, scientific and cultural dimensions, astronomy is a unique and cost-effective tool for furthering sustainable global development and for helping achieve the United Nations Sustainable Development Goals².

3. IAU100 Exhibitions

Under this flagship programme, the IAU will showcase the major achievements in astronomy over the last century along with selected IAU milestones. The goal of this activity is to produce an exhibition that can be replicated worldwide through the IAU network of National Outreach Contact points and national astronomical societies.

Box 1. IAU100 Goals

1. Increase awareness of progress and exciting developments in astronomy over the past century, in particular:
 - The importance of the collaborative enterprise of astronomy as a whole.
 - The importance of technology development for astronomical progress.
 - The coordinating role of the IAU within the global astronomical community.
2. Promote widespread access to astronomy knowledge and observation experiences.
3. Support and improve the use of astronomy as a tool for education, development and diplomacy.
4. Support and enrich an inclusive, equalitarian and diverse astronomy community.
5. Facilitate the preservation and protection of the world's cultural and natural heritage of dark and quiet skies.
6. Raise awareness and discuss prospective new developments over the next 100 years of astronomy.

Box 2. IAU100 Task Force

Members of the IAU Task Force are as follows:

Piero Benvenuti, IAU General Secretary, Italy
Sze-leung Cheung, IAU International Outreach Coordinator, Hong Kong China/Japan
Lars Lindberg Christensen, Head ESO Education and Public Outreach, Denmark/Germany
Rosaria d'Antonio, IAU Head of Administration, Italy
Ewine van Dishoeck, IAU President-Elect, the Netherlands (Chair)
Jorge Rivero González, IAU100 Coordinator, Spain/the Netherlands
Kevin Govender, IAU OAD Director, South Africa
Maria Teresa Lago, IAU Assistant General Secretary, Portugal
Silvia Torres-Peimbert, IAU President, Mexico
Pedro Russo, Leiden University, Portugal/the Netherlands
Robert Williams, STScI, USA

4. New Worlds: 'Are we Alone?'

The activities within this programme will foster a sense of global citizenship and critical thinking. They will inspire participants to evaluate our place in the Universe through activities related to exoplanets and astrobiology.

5. 100 Years of General Relativity: Eclipse

The year 2019 marks the 100th anniversary of the solar eclipse observations, which served as the first successful test of Einstein's theory of general relativity, fundamentally changing the way we understand gravity and the Universe. This programme will highlight and explain this important milestone by organising commemorative events as well as reaching out to larger audiences to raise awareness about the importance of gravity and Einstein's theory, building on recent discoveries such as the detections of gravitational waves.

6. Natural and Cultural Heritage

This programme will focus on showcasing astronomy as a rich and significant aspect of cultural and natural heritage. Activities under this programme will highlight the importance of preserving one's heritage and passing it on to future generations to explore. In addition, activities will promote the preservation of quiet and dark skies by bringing the issues of natural environment and energy preservation to the agenda of decision makers and organising educational and public engagement events.

7. Astronomy for All

An important focus of the IAU100 celebrations will be the implementation of actions to promote diversity and support and encourage women and minority ethnic scientists and engineers at all career levels. This programme will promote inclusive, equitable work environments within astronomy-related careers. In addition, the programme will focus on facilitating access to astronomical resources and careers for people with special educational or physical needs and provide role models and mentors for groups not adequately represented in science.

8. Star-parties

Through the organisation of pavement astronomy events, this programme will enable as many people as possible, especially children, to look at the sky through a telescope and gain a basic understanding of the Universe.

Get Involved!

Whether you are a professional working in astronomy, an amateur astronomer or just someone interested in astronomy, we would love for you to get involved in the celebrations. Please check the IAU website for the latest updates and how to get involved at the regional and national level through the IAU Outreach Network and national astronomical societies.

If you have an interesting activity idea that falls under any of the flagship programmes, do not hesitate to contact the

IAU100 Secretariat to share your idea and discuss potential endorsement. In addition, we expect to raise funds for selected grassroots actions at the national and local level soon.

Notes

- ¹ IAU National Outreach Contacts: <https://www.iau.org/public/noc/>
- ² United Nations Sustainable Development Goals: <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Biographies

Jorge Rivero González is the IAU100 coordinator based in Leiden University, the Netherlands.

Ewine van Dishoeck is Professor of Molecular Astrophysics at Leiden University, the Netherlands, the IAU President-Elect and the IAU100 Task Force Chair.

Pedro Russo is the head of the Astronomy and Society research group at Leiden University, the Netherlands.

Sze-leung Cheung is the IAU International Outreach Coordinator based at the National Astronomical Observatory of Japan in Tokyo.