



# IAU Symposium 367/VIRTUAL Education and Heritage in the Era of Big Data in Astronomy

The first steps on the IAU 2020-2030  
Strategic Plan

NOW 8-12 December 2020

3<sup>rd</sup> Circular. July 20<sup>th</sup>, 2020

## NEWS

*“As with most other sciences, astronomy is being fundamentally transformed by the Information and Computation Technology (ICT) revolution. The data volume is growing exponentially, can be accessed remotely and the observations can be performed even without a real knowledge of a telescope. The new approaches to the data permit the development of new tools, techniques and resources for data analysis and produce discoveries that probably never would be reached with traditional methods of Astronomy data analysis”.*

When we wrote the above text, the World still was as normal as it used to be; now we are living a completely new reality in which new achievements are concentrated mainly on the preservation of life while facing a pandemic.

The primary goals of this Symposium are to give a global vision of Education and Heritage in the framework of the goals as presented in the IAU 2020-2030 Strategic Plan, to propose a road map and a global Astronomy education agenda for the next decade, while honouring the education from the past. But now, we will only communicate virtually.

This is a new challenge, but we hope everyone interested in the Symposium topics will continue their participation as protagonists of the changes in Education and

Culture. This meeting could be an example of the new challenges for human beings and, in particular, for Education, Outreach and Development.

We are happy to announce the IAUS367 is going virtual, with support by the IAU and all the involved institutions. This 3<sup>rd</sup> Circular is to share the news.

## NEWS

The most important news is about registration for the symposium, the deadlines, and the timeline. This last topic is very important in the new virtual framework.

## Registration

**Registration** for the virtual meeting is **free**.

We have all the previous registration fees. If you filled out the form, you do not need to do it again.

A [new form](#) is now available for new registrations. The deadline for registration is **September 20<sup>th</sup>, 2020, at 23:59 (UTC)**

We are working to refund the registration fee to those people who made the early registrations. The information about this particular issue will be sent to each registrant.

## Abstracts

The deadline to submit your contribution for the IAUS367 sessions is moved to **September 20<sup>th</sup>, 2020, at 23:59 (UTC)**.

The abstract form is the same as the previous one. See the [website](#).

– Abstracts for the program will be distributed on **November 11<sup>th</sup>, 2020**.

## Proceedings

The contributions to the symposium will be published in digital form. The Editorial committee includes:

*Rosa Ros*, Technical University of Catalonia, Spain

*Jay Pasachoff*, Williams College—Hopkins Observatory, USA

Patricio Rojo, Universidad Nacional de Chile, Chile  
 Naomi Pasachoff, Williams College—Hopkins Observatory, USA

## Agenda and Timeline

Several items in the organization were changed, according the new style for the Symposium:

- The date is changed to 8-12<sup>th</sup> December, 2020.
- The schedule for the meeting was modified to 11:00 to 16:00 (UTC). This was a very difficult decision, because we need to help the participation of all the interested people from their locations all over the Earth.
- The Timeline was modified.
- The virtual format makes possible that the IAU past, actual and elect Presidents can be part of the symposium.
- The new organization of time is presented in the next section.

## IAUS367-ONLINE

### *Proposed Agenda (UTC - TIME)*

Color code:

**Red:** opening ceremony and closing remarks.

**Black:** Symposium invited talks and sessions.

**Green:** Associated events/workshops/round tables

**Blue:** Public conferences

<b>Tuesday December 8</b>		<b>Chair</b>
<b>11:00 -11:30</b>	<b>Opening ceremony: Ewine van Dishoeck SOC Welcome</b>	<b>Beatriz García/RosaRos</b>
<b>11:30 – 12:00</b>	<b><u>Invited Talk 1</u> John Hearnshaw</b>	<b>Susana Deustua</b>
<b>12:00 – 13:00</b>	<b>Session 1: State of the Art in Astronomy Education</b>	<b>Paulo Bretones</b>
<b>13:00 – 13:30</b>	<b>Break</b>	
<b>13:30 – 14:00</b>	<b><u>Invited Talk 2</u> Nestor Camino</b>	<b>Julieta Fierro</b>
<b>14:00 – 15:00</b>	<b>Session 2:</b>	<b>Jay Pasachoff</b>

	<i>Citizen Science and Solar Eclipses</i>	
15:00 -15:30	<u>Invited Talk 3</u> Alex Young	Hebe Cremades
18:00 – 20:00	<i>Associated Event 1: Galaxy Forum</i>	Steve Durst

<b>Wednesday, December 9</b>		<b>Chair</b>
11:30 -12:00	<u>Invited Talk 4</u> Markus Pössel IAU Office of Astronomy for Education	Rosa M. Ros
12:00 – 13:00	Session 3: Astronomy Education Research	Akihiko Tomita
13:00 – 13:30	Break	
13:30 – 14:00	<u>Invited Talk 5</u> Georg Zotti	Julio Fernandez
14:00 – 15:00	Session 4: Influence of Astronomy in other disciplines. Astronomy to promote science vocations.	Muriel Gargaud
15:00 – 15:30	<u>Invited Talk 6</u> Daniela Lazzaro	Andrea Sosa
15:30 – 16:00	<u>Chris Impey</u>	
18:00 -20:00	<b>Discussion and round table: Research, innovation, literacy and inclusion in Astronomy Education (Spanish/English)</b>	<b>Nicoletta Lanciano, Amelia Ortíz</b>
21:00 – 22:00	<i>Public Talk</i>  <i>Jay Pasachoff. This Solar Eclipse and Others (in English)</i>	<i>Nestor Camino</i>

<b>Thursday December 10</b>		
10:00 - 11:00	<b>NASE Workshop: Eclipses!! (in English) for Europe, Africa, Asia and Oceania</b>	<b>Rosa M. Ros and NASE referents</b>
11:30 - 12:00	<u>Invited Talk 7</u> Michael Fitzpatrick	Hidehiko Agata
12:00 – 13:00	Session 5: Innovation in Education.	John Hearnshaw
13:00 – 13:30	Break	
13:30 – 14:00	<u>Invited Talk 8</u> Boonrucksar Soonthornthum NARIT (Next	Paulo Bretones

	<b>C1 President)</b>	
<b>14:00 – 15:00</b>	<b>Session 6: Literacy in Astronomy</b>	<b>Robert Hollow</b>
<b>15:00 – 15:30</b>	<b><u>Invited Talk 9</u> Astronomy for Development Carolina Ödman</b>	<b>Beatriz García</b>
<b>18:00 - 20:00</b>	<b>NASE Workshop: Eclipses!! (in Spanish) para Europa y Latin America</b>	<b>Rosa M. Ros, Ricardo Moreno, Beatriz Garcia</b>
<b>21:00 – 22:00</b>	<b><i>Public Talk</i> <i>Juan Belmonte Astronomía, Paisaje y Patrimonio Mundial: de Gran Canaria a Chankillo pasando por Menorca (in Spanish)</i></b>	<b><i>Silvia Torres</i></b>

<b>Friday Dec 11</b>		
<b>11:30 -12:00</b>	<b><u>Invited Talk 10</u> Shanshan Li</b>	<b>Dongni Chen</b>
<b>12:00 – 13:00</b>	<b>Session 7: Big Data in Education Session</b>	<b>Chenzhou Cui</b>
<b>13:00 – 13:30</b>	<b>Break</b>	
<b>13:30 – 14:00</b>	<b><u>Invited Talk 11</u> Alejandro Lopez/Alejandro Gangui/</b>	<b>Julio Fernández</b>
<b>14:00 – 15:00</b>	<b>Session 8: Cultural Astronomy and Heritage.</b>	<b>Alejandro Gangui</b>
<b>15:00 – 15:30</b>	<b><u>Invited Talk 12</u> Cesar González García.</b>	<b>Alejandro López</b>
<b>18:00 -20:00</b>	<b>Workshop: Construcción de dispositivos didácticos que materializan los estados de iluminación del suelo y del planeta (in Spanish)</b>	<b>Néstor Camino</b>

<b>Saturday December 12</b>		
<b>11:30 - 12:00</b>	<b><u>Invited Talk 13</u> Karen Hallberg</b>	<b>Boonrucksar</b>
<b>12:00 – 13:00</b>	<b>Session 9: Astronomy and Inclusion. The role of women and girls in Astronomy.</b>	<b>Amelia Ortiz</b>
<b>13:00 – 13:30</b>	<b>Break</b>	
<b>13:30 – 14:00</b>	<b><u>Invited Talk 14</u> Jarita Holbrook</b>	<b>Katrien Kolenberg</b>

14:00 – 15:00	<b>Session 10: Informal Education: museums, planetariums, etc.</b>	<b>Néstor Camino</b>
15:00 – 15:30	<b><u>Invited Talk 15</u> Susana Deustua</b>	<b>Jarita Holbrook</b>
<b>15:30 - 16:00</b>	<b>Closing Remarks</b>	<b>Debra Elmegreen</b>
<b>18:00 – 20:00</b>	<b>Associated Event: Turn on the Night, Special Light Pollution WGs meeting (in English)</b>	<b>Connie Walker</b>
21:00 - 22:00	<b>Public Talk  Andrea Sosa: «Apaguemos las luces y encendamos la noche: al rescate de la luz de las estrellas en una era de iluminación artificial». (in Spanish)</b>	<b>Nicoletta Lanciano</b>

*SOC appreciates the participation in the symposium of IAU presidents, Silvia Torres (past), Ewine van Dishoeck (actual) and Debra Elmegreen (elected).*

## **Total Solar Eclipse**

On December 14, 2020, a Total Eclipse of the Sun will travel from west to east over the territory of the Republic of Argentina, crossing Patagonia. We will invite you to move “virtually” to the sites in Argentina from which local groups will transmit the event, in Piedra del Aguila (to the West) and Las Grutas (to the East).

We are working to provide a live broadcasting of the eclipse through the internet. More information will be send soon.