

IAU Commission C1: Astronomy Education and Development

Annual Report (2022-2023)

1. Commission C1 Organizing Committee

Boonrucksar Soonthornthum (President)

Urban Eriksson (Vice-President)

Paulo Sergio Bretones (Advisor, Past-President)

Maria del Carmen Argudo Fernandez

Rosa Doran

Robert Paul Hollow

Siramas Komonjinda (Secretary)

Margarita Metaxa

Amelia Ortiz Gil

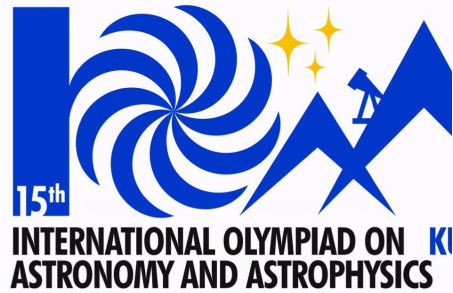
Carmen Aleida Pantoja

2. Commission C1 Working Groups:

- Commission C1 WG: Astronomy Competition for Secondary School Students
- Commission C1 WG: Astronomy Education Research & Methods
- Inter-Commission C1-C2-C3-C4 WG: Astronomy in Culture (WGAC)
- Inter-Commission C1-F2-F3-H2 WG: Education and Training in Astrobiology
- Inter-Commission C1-C3-C4 WG: Ethnoastronomy and Intangible Astronomical Heritage

3. Commission C1 Working Group: Astronomy Competitions for Secondary School Students (2022-2023)

During August 14-22, 2022, the 15th International Olympiad on Astronomy and Astrophysics (15th IOAA) held at Kutaisi, Georgia. There were 209 students from 37 main and 6 guest teams participating the 15th IOAA. In addition, 24 students from 6 countries participated in on-line mode. This year, 28 Gold, 38 Silver and 55 Bronze medals were awarded.



At present, the WG has prepared a feedback survey for participants of international competitions (Olympiads) and has been preparing an updated version of the survey of astronomical competitions, which we expect to disseminate through the NAEC and NOC network shortly. The survey aims to collect information about the national selection procedure of the participated countries, intensive training in astronomy and astrophysics for students in each country and sponsor methods.

Survey of the National Astronomy and Astrophysics competition practices

Dear all,

We are interested in learning about your national selection process and sponsor methods. This survey is intended for us all to learn and help guide new country participants. It is also intended to help well established countries get ideas and find ways to improve. Survey should take about 15 minutes or less to complete.

Please fill out the survey by **April 7th**.

The results of the survey will be summarized and posted on the official IOAA website as guidelines.

Thank you for your time!

IOAA Executive Committee

Front page of [IOAA] National Selection Survey Form

The survey is intended for the participating countries to learn, to get ideas and find ways to improve as well as to help guide new country participants.

4. Commission C1 Working Group: Astronomy Education Research & Methods, annual report in 2022-2023

4.1 Astronomy Day in Schools (ADiS)

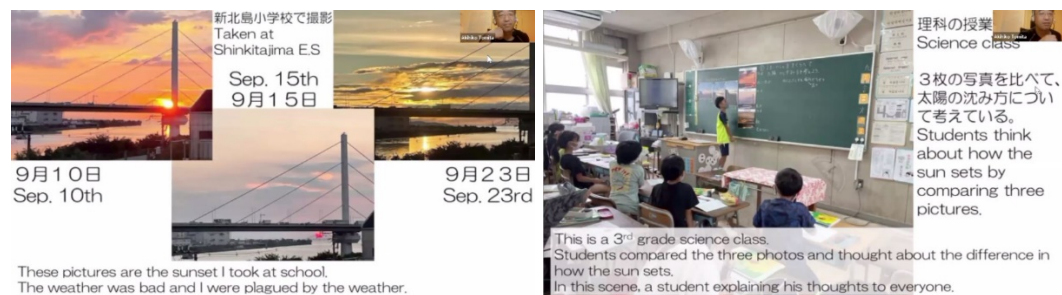
The Astronomy Days in Schools project, which began as one of the IAU 100 Global Projects, has been organized by the sub-WG of Astronomy Days in Schools under the WG of Astronomy Education Research & Methods.

The project website (<https://adis.narit.or.th/>) is hosted by the National Astronomical Research Institute of Thailand (NARIT) starting in 2021.



Top image banner of the ADiS website.

The project hosts a quarterly online program on the occasion of the equinox and solstice, which is a key feature of the project. Students and teachers from different countries present the astronomical, cultural, and social aspects in the scenes of their daily life and at their schools at that time.

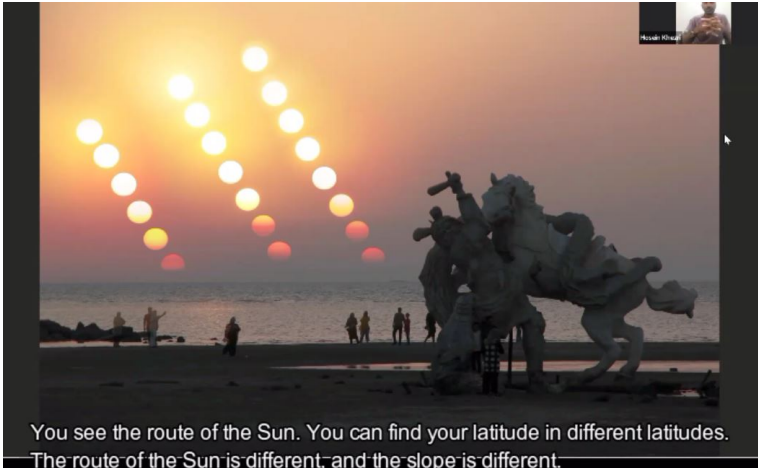


A snapshot of the ADiS September equinox 2022 program, an elementary school students learning about the sunset position, from Japan.



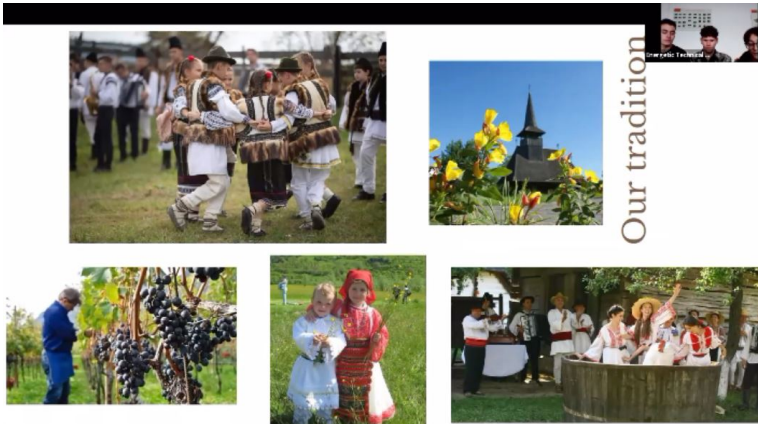
and connect with the stellarium, this is freeware, and teach and train them how to teach students in the planetarium.

A snapshot of the ADiS September equinox 2022 program, student activity constructing mobile planetarium, from Thailand.



You see the route of the Sun. You can find your latitude in different latitudes. The route of the Sun is different and the slope is different.

A snapshot of the ADiS September equinox 2022 program, teaching material showing that the constant angle of sunset indicating the latitude of the site, from Iran.



although in these photos it is not very visible our popular decorations, decorated with motives inspired by nature, flowers, leaves, or even birds.

A snapshot of the ADiS September equinox 2022 program, tradition and local culture introduced by students, from Romania.

Online programs at equinoxes and solstices in 2022, date and participating countries

- ✓ March equinox: on March 21, 2022, Japan, Iran, and the sub WG members
- ✓ June solstice: on June 28, 2022, Japan, Thailand, Iran, Bulgaria, Romania
- ✓ September equinox: on September 30, 2022, Japan, Thailand, Iran, Bulgaria, Romania, Egypt
- ✓ December solstice: December 23, 2022, Japan, Thailand, Iran, India, Russia, Bulgaria, Romania, Spain, Columbia, Peru
(March equinox in 2023: March 26, 2023, Japan, Thailand, Iran, Bulgaria, Romania)

An archive is available on our YouTube channel:

https://www.youtube.com/channel/UCZgkhOGcFwJGLVo_BnVzY9w (its shortened URL: <http://bit.ly/3uDICG4>), where edited videos with English subtitles are stored.



Astronomy Day in Schools Project

@astronomydayinschoolsproje8412 チャンネル登録者数 28人 7本の動画

The Astronomy Day in Schools (ADiS) project is organized by the sub WG o... >

Top image banner of the ADiS YouTube channel with its logo.

Presentations

- ✓ “Launch of the new Astronomy Day in Schools (ADiS) and its results to date” Akihiko Tomita, Paulo Bretones, the 31st General Assembly of the IAU, Division Day - Division C, contributed talk (No.853), August 5, 2022, Busan, Korea.
- ✓ “Astronomy Day in Schools project: practice on equinoxes and solstices” Akihiko Tomita, Paulo S. Bretones, 9th International Conference on Geoscience Education (IX GeoSciEd), August 21, 2022, Matsue, Japan.
- ✓ “Classroom Activities Related to Equinoxes and Solstices: Examples from the Astronomy Day in Schools” Tomita Akihiko, Paulo Bretones, the 4th Shaw-IAU Workshop on Astronomy for Education, 15 and 16 November 2022, online.

We will present our latest activity at AstroEdu2023 (May 2023, Canada) and APRIM2023 (August 2023, Japan).

Member of the ADiS sub WG (alphabetical order of family name)

Kazuya Ayani, Bisei Astronomical Observatory, Japan
Hasan Baghbani, Iranian Teachers' Astronomy Union, Iran
Julie Bolduc-Duval, University of Toronto, Canada
Paulo Sergio Bretones, Universidade Federal de São Carlos, Brazil (co-chair)
Sze-leung Cheung, National Astronomical Research Institute of Thailand,

Thailand

Parham Eisvandi Dehnoei, Iranian Teachers' Astronomy Union, Iran
Rosa Doran, NUCLIO, Núcleo Interactivo de Astronomia, Portugal
Urban Eriksson, Lund University, Sweden
Rahimeh Foroughi, Iranian Teachers' Astronomy Union, Iran
Rica Sirbaugh French, MiraCosta College & Center for Astronomy Education,

United States

Edward Leocadio Gomez, Las Cumbres Observatory, United Kingdom
Maryam Hadizadeh, Iranian Teachers' Astronomy Union, Iran
Robert Paul Hollow, CSIRO, Australia
Hossein Khezri, Iranian Teachers' Astronomy Union, Iran
Carmen Aleida Pantoja, University of Puerto Rico-Rio Piedras, Puerto Rico
Maryam Papari, Iranian Teachers' Astronomy Union, Iran
Mahdi Rokni, Students' International Network for Astronomy, Iran
Rosa M. Ros, Universitat Politècnica de Catalunya, Spain
Saeed Salimpour, OAE, Germany
Boonrucksar Soonthornthum, National Astronomical Research Institute of

Thailand, Thailand

Akihiko Tomita, Wakayama University, Japan (co-chair)

4.2 Astronomy Education Journal (AEJ)

About the Journal

AEJ aims to meet the needs of the astronomy education community by providing a location for all manner of practical, newsworthy and scholarly publications involving developments in the field. In a sense, the journal tries to capture the original spirit whilst taking on board the important lessons from the, now out-of-print, Astronomy Education Review. By focusing on building community collaboration, disseminating important news and opinions, while also maintaining a section on more formal, technical, Astronomy Education Research (AER).

Editorial Team

Publishers and Co-editors:

Urban Eriksson

Paulo S. Bretones

Managing editor:

Saeed Salimpour

Editorial Board:

Janelle Bailey (USA)

Sanlyn Buxner (USA)

Pierre Chastenay (Canada)

Mieke de Cock (Belgium)

Michael Fitzgerald (Australia)

Richard Hechter (Canada)

Jorge Ernesto Horvath (Brazil)

Nur Nafhatun Md Shariff (Malaysia)

Italo Testa (Italy)

Akihiko Tomita (Japan)

Archives

Vol. 1 No. 1 (2021)

Vol. 2 No. 1 (2022) New issue in 2022

Vol. 2 No. 1 (2022): Astronomy Education Journal - December 2022



Welcome to the second issue of the Astronomy Education Journal

Published: 2022-12-22

See the website: <https://astroedjournal.org/>

Astronomy Education 2023 (AstroEdu2023) (to be held in 2023)



Top image banner of the AstroEdu2023 website (<https://astroeducon.org/2023/>).

The inaugural AstroEdu Conference in 2019 showed that there is a need for a conference dedicated to bringing together researchers and practitioners from the astronomy, astronomy education, general education and other communities. The second AstroEdu Conference will adhere to this mission, and will provide an overview of what has happened in the five years and look ahead into the future.

2023 Conference Themes

- ✓ Theory and Methodology: Astronomy Education Research
Highlighting the developments and innovations in research methodologies and theoretical perspectives.
- ✓ Tangible Outcomes: Astronomy Education Practice
Highlighting the innovations in bringing astronomy into the classroom and beyond.
- ✓ The Future of Astronomy Education
Learning from the past, building the present, and looking forward to the future

WHERE

University of Toronto, Toronto, Canada

WHEN

Wednesday to Friday, 10th to 12th May 2023

SCIENTIFIC ORGANISING COMMITTEE

CHAIRS

Urban Eriksson (Lund University, Sweden)
 Paulo S. Bretones (Universidade Federal de São Carlos, Brazil)
COMMITTEE MEMBERS
 Janelle Bailey (Temple University, USA)
 Julia Plummer (Pennsylvania State University, USA)
 Akihiko Tomita (Wakayama University, Japan)
 Michael Fitzgerald (LCO, Australia/USA)
 Tania Johnston (ESO, Germany)
 Lars Lindberg Christensen (NSF Noirlab, USA)
 Boonrucksar Soonthornthum (NARIT, Thailand)
 Nur Nafhatun Md Shariff (Universiti Teknologi Mara, Malaysia)
 Mieke de Cock (KU Leuven, Belgium)
 Italo Testa (University of Naples Federico II, Italy)
 Jorge E. Horvath (IAG-USP, Brazil)
 Sophie Bartlett (Cardiff University, UK)
 Saeed Salimpour (Deakin University/IAU OAE, Australia/Germany)
LOCAL ORGANISING COMMITTEE
 Michael Reid (University of Toronto, Canada) – LOC Chair
 Kara Manovich (University of Toronto, Canada)
 John Percy (University of Toronto, Canada)
 Julie Bolduc-Duval (UofT/Discover the Universe, Canada)
 Ilana MacDonald (University of Toronto, Canada)
 Leo Alcorn (University of Toronto, Canada)
 Saeed Salimpour (Deakin University/IAU OAE, Australia/Germany)

Reported by Tomita Akihiko: Co-Chair IAU ADiS and Editorial Board of Astronomy Education Journal (AEJ)

4. ADiS Presentations at IAU GA2022

The IAU GA2022 XXXIst General Assembly International Astronomical Union were held during August 2-11, 2022 in Busan, Republic of Korea. Members of Commission C1 contributed 3 presentations on August 5, 2022, 13.30-16.00 at IAU GA2022 Division C Day on the title “Launch of the new Astronomy Day in Schools (ADiS) and its results to date” as follows:

Contributor	Title
1. Akihiko Tomita	Launch of the new Astronomy Day in Schools (ADiS).
2. Hassan Baghbani	Teachers’ International Network for Astronomy (TINA).
3. Mahdi Rokni	Students’ International Network for Astronomy (SINA).

5. Other Collaboration

President of Commission C1 (B. Soonthornthum) has been invited to join the working group of Pro-Am relations in Astronomy which is one of the strategic actions of the IAU as to “Encourage communication of science and critical thinking through IAU member in public engagement, professional-amateur and citizen science activities” (IAU Strategic Plan 2020-2030). The aim of the Pro-Am relations working group is to encourage more astronomical activities between IAU professional astronomers and amateur astronomers both in research and education. It is expected that the IAU Pro-Am relations program would support the mission of the Commission C1 on astronomy education and development.

Reported by Boonrucksar Soonthornthum (IAU Commission C1 President)