Triennial Report Executive Committee Working Group Astronomy for Equity and Inclusion 2021-2024

1. Working Group Structure

a. Background

The WG on Astronomy for Equity and Inclusion was formally created in 2012 under Division C, Commission C1. In 2019 it became a working group under the Executive Committee.

From the 2024 GA it is proposed, and agreed by the EC, that the working group be renamed to the **Executive Committee Working Group for Equity, Diversity and Inclusion in Astronomy** to better reflect the purpose and activities of the working group.

b. Organizing Committee Members

Susana E. Deustua (Chair), Jacob Noel-Storr (Co-Chair) José Miguel Rodriguez Espinosa (EC Liaison) (until 2023)

Kimberly Kowal Arcand, María del Carmen Argudo Fernandez, Pierre Chastenay, David L Clements, Beatriz Elena García, Nicoletta Lanciano, Javier Mejuto Gonzalez, Dominique Proust, Kumiko USUDA-SATO, Stefania Varano, Ihuiyolitzin Villicana-Pedraza

The WG will change the Organizing Committee structure to be formed by all sub Working Group coordinators plus at large members.

c. SubWorking Groups (as of commencement of this Triennium)

- Visually Challenged. Coordinator: Amelia Bayo Hearing Impairments.
 Coordinator: None
- Motor Impairments. Coordinator: Angela Perez Henao
- Migrants, Displaced People and Refugees, Underrepresented Ethnic Groups, Underprivileged. Coordinator: Emilio Molinari
- Inclusive Outreach. Coordinators: Cesare Pagano, Andra Stoica
- Neurodiversity and Mental Health. Coordinator: Natalia Lewandowska
- Hospitals, Children's Homes, Nursing Homes and Prisons. Coordinator: Joao Retre

- Best Practice on Enforcement of Standards. Coordinator: Dave Clements
- Management of Diversity and Inclusion in Large International Collaborations.
 Coordinator: Simona Mei
- LGBTQI+ Communities in Astronomy. Coordinators: Jake Noel-Storr and One Other
- Best Practices for Surveys: Coordinators: Jake Noel-Storr and Susana Deustua

d. Membership

196 Working Group Members as of 1 July 2024.

The membership includes IAU Associate Members nominated for their relevant work in the EDI community. This is the second largest working group following Women in Astronomy (198 members); thus due to shifting memberships was, at times, the largest working group.

WG members have partnerships and collaborations with organizations involved in equity and inclusion, thus the activities of sub-working groups and individual members often take place in the context of cooperation with these entities.

2. Reported Activities

a. Changes in the WG Structure

Between 2021 and 2024 the Working Group structure was reorganized. The Organizing Committee is now made up of the WG chair and co-chair, the of each sub-working group (SWG), and the Executive Committee liaison to the Working Group.

In addition, the number of sub-working groups were reduced, due to merging and/or retiring of several SWGs.

From 2024-2027 the Working Group Organizing Committee will consist of:

- The chair and co chair
- 1 co chair from each SWG (7; see below)
- 3 at large members
- The former chair (ex officio advisor)
- The nominated EC liaison (ex officio advisor)
- A nominated representative of the Division C committee (ex officio advisor)

The number and role of the sub-working groups (SWGs) will also be streamlined to the following groups; each with two co-chairs with identified specialized roles:

 LGBTQI+ Communities in Astronomy (co-chairs for Sexuality Issues and Gender Issues)

- Inclusive Outreach by Astronomy (co-chairs for Inspiring Stars and Institutionalized Individuals)
- Disabilities and Impairments (co-chairs for Physical- and Neuro- diversity)
- Ethics in Astronomy (co-chairs for Ethics of Astronomers and Enforcement of Standards)
- Management of Diversity and Inclusion in International Consortiums
- Migrants, Displaced People and Refugees, Historically Excluded Ethnic Groups, and the underprivileged (Astronomers)
- Best Practices for Surveys
 - This final sub working group has been agreed in principle to also have a matching sub-working-group in each of the non-functional EC working groups so that a consistent survey strategy can be maintained.

b. Findings for increased collaboration

We found in this triennium the need for SWGs chairs and members to understand the limitations that the International Astronomical Union has in international law and policy. It has been clarified that we can make recommendations to the IAU EC, or recommendations or policy suggestions for Individual Astronomers, or for Astronomical Institutions. It is not the place of the working group to make statements on international (or national) political issues unless they specifically impact the field of astronomy. Other policy and recommendations can be made in accordance with official IAU policies and codes of conduct, and United Nations resolutions on appropriate matters.

We find a need for successful communication. In the past triennium we have moved to Slack to allow for topic by topic conversation channels avoiding "reply all" email threads which often accidentally drop people, and miss any changes in membership. Slack has become more hostile to "Free" accounts in this triennium, thus is becoming a less useful tool as historical messages are not available in the various topics. A new solution will be sought, where threaded conversations that reach the correct people, is possible.

Of the membership, we recognise a small fraction (10-15%) are "active members" who require more easy and ready communication on all of the topics of concern. The remaining members are typically updated via a newsletter which can be sent out by the IAU office to working group members. Each newsletter indicates to members the means to become more engaged in active communication should they wish to.

Further, a new outward facing WG AEI website is currently in development, led by Cesare Pagano and Joao Retre (co-chairs for Inclusive Outreach SWG)

Working Group Activities during 2021-2024

Enforcement of standards SWG (2021-23) and Ethics in Astronomy SWG (23-24)

- During this triennium the SWG considered standards and ethics of professional behavior that led to various proposals and recommended actions for the IAU. These issues are complex.
- Developed and proposed ombuds structure for IAU to allow centralised reporting
 of unethical behaviour within astronomy. This proposal in its current format was
 declined by the EC.
- Proposed expulsion of Geoff Marcy from IAU consistent with safeguarding of members and with actions of APS. This proposal was found incompatible with the IAU Statues and Bylaws. G. Marcy independently agreed to not participate in IAU Activities.
- Initiated a review of ethics and values statements and policies of IAU so as to establish a consistent approach across the organisation. The review was shared with the EC, further to comments on the EC new policy, suggestions from the working group were incorporated in the re-write.
- The SWG is developing a climate assessment survey to determine the major ethical and EDI issues for the IAU and how these might be addressed, a policy proposal on IAU meetings consistent with results of ethics review, and best practice guidance for hybrid meetings to address EDI and other concerns in conjunction with the Future of Meetings group.

Disabilities and Impairments SWG (various combined earlier working groups)

The activities of the members of this SWG resulted in the following successes:

- Argentinian Sign Language as an official language is recognized by law on 13 April 2023.
- The completion of the REINFORCE Project's (https://reinforceeu.eu) software for sonification of astrophysical data. The sonoUno software provides sonification of light curves, spectra, cosmic rays, particles in the LHC, muons for tomography, glitches at the Virgo gravitational wave detector and the KM3NeT neutrino telescope detectors. Results include the first PhD thesis on sonification by Johanna Casado with other PhD research in progress in perception studies, as well as development of training material.
- Publication of the Japanese Astronomy Sign List by the Astronomy Sign Language WG in Japan, led by Dr. Shin Mineshige (Kyoto University), compiled by Yusuke Tampo (Kyoto University),

- http://www.kusastro.kyoto-u.ac.jp/~tampo/outreach/astro_sign_lang_JP/master.html
- Since January 2022, "Touch the Universe" tactile exhibitions have been held at science museums throughout Japan using tactile models created with a grant from the Japan Science Museum Association (PI; Y. Suzuki). Using the JSMA's lending-borrowing system, the special exhibitions have rotated through at least fifteen museums from Kyushu to Hokkaido (Southwest to North of Japan), including Sendai Astronomical Observatory. Touch the Universe project is promoted in collaboration with Akashi Municipal Planetarium, the National Astronomical Observatory of Japan (NAOJ), Japan Braille Library, and Sendai Astronomical Observatory.

Best Practices on Standards SWG (now combined as above)

 The Best Practice on Standards subWorking Group have worked on the development of a (work-)climate monitoring proposal to allow reporting of standard problems across astronomy, and are also developing a proposal on standards for meeting locations to ensure the safety of diverse members of the astronomical community.

Inclusive Outreach SWG (Inspiring Stars)

- Held two "Community of Practice webinars", with 40 participants and positive feedback, and sessions on various topics at the CAP22 conference, and participated in Global Hands-on Universe conferences.
- Active posts on the IAU Astronomy for Equity and Inclusion and IAU Inclusive Outreach Community Facebook groups.
- The SWG have a partnership with "Astronomy for Equity" (astro4equity.org), and contacted the European Blind Union and published two articles in the European Blind Union newsletter. Recognizing the need for better and stronger approach to accessibility of published images with high visibility on media e.g.: JWST initiated outreach to NASA.
- Published detailed instructions for two new tools: "Personal planetarium" and on eyepiece extensions for wheelchair observing.
- In addition, the group has reprioritized their activities based on the (decreasing) number of active members.
- EDI is increasingly embedded in astronomical events. Hospitals, Childrens' Homes, Nursing Homes and Prisions SWG (now combined with Inclusive Outreach)
- The sub_WG for Hospitals, Children Homes, Nursing Homes and Prisons faced many challenges through 2022 since its main target audience are exactly the ones which the pandemic restricted the most. Despite this, the group continued its regular meetings and discussing new ideas to implement and build a community around the globe. The group constructed a survey to

gather, among other information, all the activities that exist around the world in the context of this group. That survey will be released and disseminated through several institutions and individuals around the world (e.g. OAO's NOC's community). Other activities include the creation of a website which will be the central repository and principal means of communication for the community, designing webinars and specific workshops, collecting articles and activities in order to create a best practice Manual for each specific target audience.

LGBTQI+ in Astronomy

- The subworking group was formed at the start of the past triennium in respect for representation of astronomer members of this community, while some subsections may be expected to be catered for by the Women in Astronomy working group, this SWG is intended to represent this community.
- The subworking group recognises differences in this community and represents this via two co-chairs with the focus of (i) Sexuality (e.g. Lesbian, Gay, Bi-, A-, Pan- Sexual communities) and (ii) Gender (e.g. Transgender, Transsexual and Intersex Communities)
- A tested scheme for definition of Gender of IAU members via a spectrum rather than a binary choice was tested and now implemented for all new IAU members. Sexuality is not recorded for members due to the great risk of that data for members living or visiting many countries.
- The SWG made recommendations about countries hosting IAU meetings and symposia that are exclusionary to, or dangerous for, LGBTQ+ members. In principle the IAU office agreed to ensure that members can participate online at such locations where necessary. A more general policy will be proposed for the next triennium, also working with the culture, ethnicity and race SWG.
- The SWG co-hosted the "NARIT-IAU LGBTQI+ in Astronomy Meeting" (NILAM) in Chiang Mai, Thailand 19-21 February 2024, with co-sponsorship from the IAU EC. This was the first LGBTQ+ Astronomy Meeting in South-East Asia. Sub-Working Group members J Noel-Storr, K Blumethal, and one other, were in the scientific organizing committee, and also spoke and ran workshops at the event. NARIT is a Thailand Government Entity The National Astronomical Research Institute of Thailand.
 - o The SWG is very pleased that Thailand Government became the first south-east Asian nation to recognise non-gender-regulated marriage in law on 18 Jun 2024.

General Activities

 The IAU EC and the WG were a sponsor of the "Our Giant Leap Hackathon 2022" held in Daejeon, South Korea on August 14th and 15th 2022 and

- organised by the SGAC (Space Generation Advisory Council) Diversity and Gender Equality Project Group. Teams of up to 5 hackers worked on the next best idea for gender equality on Earth using space technology and know-how. Jake Noel-Storr represented the WG at this event.
- A virtual WG conference was held in 2022 over several days to provide a forum for WG members to report on their efforts and for discussion. One result of this meeting was the reorganisation of the WG.

3. Name and actions

- We will be renamed: EW WG for Equity Diversity and Inclusion in Astronomy
- b. We will continue to follow and encourage the IAU to implement the actions given in the Springboard to Action
- c. We will promote the community as above, with more communication expectations between members. In the next triennium we will require ever member to contribute at least one sentence of their activity. Each member should be a member of at least one sub working group.

Remit

- d. Provide policy recommendations to the IAU EC
- e. Provide recommendations to Division C
- f. Provide EDI recommendations for individuals and organizations
- g. Support making the field of astronomy EDI relevant in every area (especially through the Sub Working Groups)
- h. Grow EDI in every sub working group area, as it reflects to astronomers, enabling astronomers to engage others, or to make the astronomy workplace appropriate and inclusive for an increasing diversity of individuals.

Springboard to Action

- i. The Springboard to Action (STA) will continue to be implemented across the SWGs
- j. Individuals and Institutions will be encouraged to follow the STA
- k. By the 2027 GA we expect that the STA should be complete and / or in action, and that the UN STDGs are firmly in place, or with a description of achievement before IAU GA 2030.

4. Election of new officers

a. Chair and Co-Chair

i. In the policy of the working group the co-chair of the past triennium (J. Noel-Storr) will rotate to be the new chair

- ii. The previous chair (S. Deustua) will become the past-chair in the OC and also may chair or co-chair or be member of other SWGs.
- iii. The incoming co-chair will be put in place at the WG session during the GA. The previous Chair and Co-Chair will make a nomination one month in advance. Active members will have one week to respond. Pending no objections, then the nominee will become the new co-chair at the GA.
 - If there are objections, one further week will be opened for nominations, any member may nominate a candidate

 they can only be nominated if they also have agreed to be elected and serve the 3 + 3 year term.
 - 2. After the one week nominations are then closed, and active members are invited to vote for a period until 1 hour and 1 week before the session of the working group at the GA.
 - 3. At the start of the Working Group session at the GA the new co-chair becomes officially installed.
 - 4. The nomination of the current chair and co-chair is Dr Kelly Blumenthal, which has been communicated.

Respectfully Submitted,

Susana Deustua, Chair (2021-2024)

Jake Noel-Storr, Co-Chair (2021-2024)