

EXECUTIVE COMMITTEE

CO-CHAIRS

ORGANIZING COMMITTEE

WORKING GROUP OF JUNIOR MEMBERS

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TRIENNIAL REPORT 2018–2021

1. Definition and application procedure

The IAU Executive Committee (EC) Working Group of Junior Members (WG of JMs) focuses on topics that are crucial to early career astronomers across the globe. This includes careers in academia and industry, mobility, psychological and financial security, inclusivity, transparency, geographical, and gender balance. JMs represent the majority of active astronomers worldwide, which not only drive the field forward, but also provide an invaluable influx of skilled workers to all branches of society. The WG of JMs was established at the XXXth IAU GA in Vienna in August 2018.

Junior Members are defined as individuals who have completed a PhD in the field of astronomy no more than five years ago, as of October 1st of the current calendar year, and are pursuing research in astronomy or have an affiliated profession at the time of application. Candidate JMs are proposed to the IAU Executive Committee (EC) by the National Committee for Astronomy (NCA) of their current country of employment. The call for nominations comes out annually on October 1st and the complete applications are submitted by the applicants before December 15th. Next, the application review is passed on to the NCA, which terminates its review by February 15th of the subsequent year. The Membership Committee reviews the applications by March 31st and sends these final applications to the EC for approval. Full application details are made available in the annual calls. In the case of any issues or questions, the applicants may contact their local NCA or the IAU Secretariat. A JM membership is temporary and expires after six years. At the end of this membership, it is possible to be nominated as an Individual Member, if the JM is still active in astronomy research or in an astronomy-related project. JMs that become employed in non-astronomy related industries remain JMs for the entire duration of their six year term and provide a vital link to industry and the job market outside of astronomy.

This definition includes 6 generations of post-PhD researchers and inevitably revitalizes the IAU to ensure that its vision remains connected with present-day junior astronomers. The temporary membership is a pathway towards individual IAU membership for those that will pursue a career in astronomy or will take on affiliated professional duties.

The goals of the EC WG of JMs are to:

- (a) Build a network of early career researchers locally, nationally, and internationally.
- (b) Involve JMs in the activities of the IAU, its commissions, and other mechanisms.
- (c) Enable the early stage career researchers to share their experiences, thoughts, and views about their careers.
- (d) Identify the issues encountered by early career researchers worldwide (such as, but not limited to: international mobility, collaborative work, all forms of discrimination).
- (e) Propose measures to resolve the identified issues in order to improve the research environment and working conditions.
- (f) Organize an international conference exclusively for early career astronomers on a regular timescale and on a rotational continental basis. This conference is a focused effort of the WG to give junior members an opportunity to:
 - Exchange experiences from their PhD and post-PhD time.
 - Promote their research and/or current work.
 - Get acquainted with representatives from industry.
 - Learn about entrepreneurship, start-ups, and how to transcend the research-market boundary.
 - Participate in workshops (such as, but not limited to, professional development and acquisition of skills to move up the academic/industrial ladder, work-life balance, psychological and financial security).
 - Expand their knowledge on others areas of research, other astronomy-related jobs, and post-astronomy possibilities.
- (g) Represent the JMs within the framework of the IAU and all its activities.

The Organizing Committee (OC) of the EC WG of JMs intends to communicate on a regular basis with the JMs and to solicit input from the entire JM community to reflect the up-to-date needs of its members. The members of the OC are to be selected through the official voting mechanisms of the IAU. The WG EC of JMs aspires to empower all early career astronomers within the framework of the IAU, the academic field of astronomy and on the international job market.

2. Membership

All JMs are automatically considered members of the WG. 352 JMs were accepted during the 2017/2018 round, 192 JMs were accepted during the 2018/2019 round, and 203 JMs were accepted during the 2019/2020 round. Total IAU JMs: 747 WG members. The outcome of the 2020/2021 round is unknown at the time of writing.

3. Major Activities of IAU EC WG of JMs during 2018-2021

3.1. Logo contest

The IAU Junior Member Working Group LOGO contest has been set up in order to find a logo for the WG. The winning logo will be used for a variety of activities and will represent our WG. The logo will appear side by side the official IAU logo, as per conformity specified by Lars Lindberg Christensen. 23 submissions were received from 7 individuals. The OC selected 5 entries for a public vote open to all JMs. The winning logo has now been selected and will be used to promote our WG. Winning logo has been created by Dr. Katharina Immer (Twitter: @AstroKat85) of the Leiden Observatory. Our new logo is inspired by the first goal of the WG of JMs: building a network of early



Figure 1. The logo of the IAU EC WG of JMs.

career researchers locally, nationally, and internationally. The inner arms of the figurines connect to form the network. The outer arms symbolize inclusivity and mutual support. The figurines are arranged in a circle, representing the worldwide association of early career researchers. And of course, the stars connect the logo to astronomy.

3.2. *Photo Contest*

The IAU Junior Member PHOto coNtest #IAU_PHOTON's main goal is to showcase our 700+ and growing Junior Members spread across the globe to connect with our international community of early career astronomers. We wanted to create a platform to highlight JM's scientific achievements, day-to-day scientific activities, teaching, and outreach efforts. Through this contest we want to showcase the impact early career astronomers have on fellow colleagues, young minds, and wider communities around them worldwide. The contest was launched in August 2020. Six winners (one per month starting September 2020) have been selected thus far. Winners are announced via an email to all JMs, posted on our Twitter and our WG's IAU website. Further (non-winner) entries are displayed roughly weekly on our Instagram. At the time of writing, the photo contest is still on-going on a rolling basis.

3.3. *Social media and online means of communication*

The OC has set up various social media channels to enhance communication between the OC and the JMs, as well as between JMs. These channels of communication are open to all JMs and others that are interested.

- Twitter: 123 followers
- Instagram: 74 followers
- Facebook: 66 followers, 59 likes
- Slack Workspace: 233 members
- Youtube: 223 subscribers, 110-440 views per recording
- WG's IAU website: description, member list, member statistics, news (including winners of the Photo Contest and events of the IAU ECA Online Discourse Series), promo slide, social media links, annual reports
 - Emails via the IAU Secretariat: major announcements are sent out to all JMs via the official IAU channel
 - Google account: the WG is using a free Google account at the moment to deal with queries to the OC

- Mailchimp: this website is being used to spread announcements about the IAU ECA Online Discourse Series to all that register for our events.

3.4. *Virtual coffee break*

Two pilot “virtual coffee break” events were held: February 5th, 2021 for 30-60 min (10:00 CET) and March 10th, 2021 for 30-60 min (16:30 CET). The events were held on Gather.Town. A small number of JMs joined for a casual chat, networking, and to find out more about the WG.

3.5. *IAU Early Career Astronomer Conference 2020*

This conference was tailored to the needs of early career astronomers for progressing along the professional paths in academia, industry, and beyond with inspirational speakers, small group trainings, and networking possibilities with representatives of astronomy-related companies and organizations. The first edition of the IAU Early Career Astronomer was supposed to be held in November 2020 in Paris at Sorbonne University. Due to the COVID-19 crisis, the conference has been canceled and replaced by other virtual events such as the IAU Early Career Astronomer Online Discourse Series.

3.6. *IAU Early Career Astronomer (ECA) Online Discourse Series*

This virtual series contains career discussions in academia and industry, multifaceted science highlights, professional development trainings, and more. All are tailored to our community of early career astronomers. The live events are attended by 100-200 people per event. The events are made available as a Zoom Webinar and streamed live on Youtube. Following the event, a recording is made available (upon permission of the speakers) on our Youtube channel. The recordings subsequently receive an additional 180-400 views per recording. 11 events have been fixed thus far. At least 3 more are expected to be held prior to the series being stopped/paused at the point of transition of current OC to the new OC of the WG (around August 2021).

We solicit feedback through a Google form for our events and received 51 feedback responses, out of which:

- 58.8% said they were very satisfied with the event,
- 2% said they were not satisfied and the rest in between;
- 54.9% said they were very happy with the content,
- 3.9% were not happy with the content and the rest were in between.

The events have attracted not only IAU JMs, but also a high number of Individual Members (20% for the last few events at the time of writing, for example). Series of events such as these have attracted a large number of non-members of the IAU as a whole, which we hope inspires new members to join the IAU in the call that has just closed or the coming one. This series of discourses has had a positive impact beyond just the IAU JMs. This was also reflected in the feedback forms that we have received.

4. **Additional Activities of IAU EC WG of JMs during 2018-2021**

The current Triennial Report serves as a follow-up to the submitted Annual Report of 2019, which includes some of the very initial actions of the OC of the WG. Continuous communication via Slack and regular Zoom telecons are used for internal communication within the OC. No further in-person meetings have taken place due to the COVID-19 crisis and imposed gathering and travel restrictions. The OC will rotate in August 2021. The rules for serving on the OC are currently being formulated and the election

procedure is being devised at the time of writing. As the IAU GA in Busan has been postponed to August 2022, the incoming OC will take over all the plans envisioned by the outgoing OC. The co-Chairs will speak during the Special Session #9 “European Forum of Astronomical Communities” at the European Astronomical Society on the 28th of June 2021. The OC is preparing an article that will be featured in Catalyst 5 (to be published in June 2021).