

PREFACE

Communities with disabilities have historically experienced restricted access to many opportunities. In recent years, the emergence of new technological resources, is likely to increase the inequity gap unless actions against this are reinforced at different levels in the society. In most cases, appropriate frameworks for inclusive involvement and engagement are not being implemented or are not implemented in the correct way. Fortunately, there are more and better initiatives to strengthen the implementation inclusion and diversity strategies as ordinary actions towards the social and scientific development of our society.

Given its important historical, scientific and cultural role for human beings, and its overall characteristics, astronomy is a relevant tool to achieve inclusion goals at different levels. Inclusive astronomy is an important topic nowadays, to transform astronomy to better attract people embodying many types of diversity, to highlight the importance to ensure inclusive participation in astronomy education, research and outreach, identifying the barriers preventing people with disabilities to engage and progress in all the aspects that are natural of our scientific field and underpinning the crucial actions that can foster equality, accessibility and inclusivity.

The International Astronomical Union (IAU) consolidated in 2012 a Working Group (WG) on Astronomy for Equity and Inclusion, that was initially part of the Commission C1 Astronomy Education and Development, but since 2019 is an IAU Executive Committee Working Group, a clear evidence of the global and important interest on these issues. The WG's objective is "to address the systemic structure, functions, processes and attitudes that result in the exclusion or restricted participation of under-represented groups in the field of astronomy. Key to achieving this goal is research into and the development of strategies, tools and resources that will enable the equal participation in astronomy of people of different ethnic, cultural, religious background, gender, and disability identities."

The IAU WG Astronomy for Equity and Inclusion organized in 2016 the first Workshop on Astronomy Beyond the Common Senses for Accessibility and Inclusion (WAI) in conjunction with the XV Latin American IAU Regional Meeting (LARIM) that was held in Cartagena de Indias, Colombia. The workshop took place on October 8th, with the support from the Universidad Nacional de Colombia, Universidad de Cartagena, Parque Explora, Planetario de Medellín, and Planetario de Bogotá. It was attended by educators, astronomers and other experts in inclusive education. Dr Wanda Díaz-Merced, served as the chair of the scientific organizing committee. A range of conferences were presented on efforts in making astronomy more inclusive. Relevant resources were also exhibited at the workshop, such as 3D printed tactile material, braille posters, among others.

In the years following the WAI, the astronomy community experienced an increasing number of projects, initiatives, and people involved in inclusive astronomy. The pandemic increased further the number of virtual-modality initiatives reaching more people worldwide. All this context motivated the organization of a new version of the Workshop. The 2nd Workshop on Astronomy Beyond the Common Senses for Accessibility and Inclusion (2WAI) was held on November 17-18, 2021, in virtual modality. It was an interdisciplinary meeting with participation from astronomers, educators, disability specialists, students, and science communicators, providing:

- A new opportunity to share strategies and experiences.
- Work toward specific objectives.

PREFACE

- Discuss recent application.
- Participate in initiatives that were developed for audiences with disabilities.

A number of 343 participants registered for the Workshop, from 53 different countries: Argentina, Armenia, Australia, Austria, Brazil, Canada, Chile, China, Colombia, Czech Republic, Denmark, Dominican Republic, Ecuador, El Salvador, France, Germany, Ghana, Greece, Guatemala, Haiti, India, Indonesia, Iran, Ireland, Italy, Japan, Jordan, Malaysia, Mexico, Morocco, Netherlands, Nicaragua, Nigeria, Pakistan, Panama, Paraguay, Peru, Philippines, Portugal, Puerto Rico, Russia, Slovenia, South Africa, Spain, Sweden, Tanzania, Thailand, Uganda, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela.

The program comprised conferences: 20 oral contributions and 4 invited talks by: Stavros Katsanevas (European Gravitational Observatory), Gary Foran (Swinburne University of Technology), María del Carmen Argudo Fernández (Pontificia Universidad Católica de Valparaíso) and Dayna Thompson (Charles W. Brown Planetarium – Ball State University). The organizers express their appreciation to the people and institutions that supported this event.

The 2WAI Scientific Organizing Committee was conformed by: Santiago Vargas, Chair (Universidad Nacional de Colombia, Observatorio Astronómico Nacional, Colombia), Beatriz García (Instituto de Tecnologías y Detección en Astropartículas, CNEA, CONICET, UNSAM, Argentina), Gary Hemming (European Gravitational Observatory (EGO) — REINFORCE, Italy), Sonia Duffau (Associated Universities Inc., National Radio Astronomy Observatory, Chile), Nicolás Vázquez (Escuela Politécnica Nacional, Ecuador) and Angela Pérez (Planetario de Medellín - Parque Explora, Colombia).

The Local Organizing Committee was coordinated by: Silvina Pérez Álvarez (Instituto de Tecnologías y Detección en Astropartículas, CNEA, CONICET, UNSAM, Argentina), Andrés Molina (Universidad Nacional de Colombia), Erika Hernández (Universidad Nacional de Colombia).

For more details, accessing the Posters Exhibition and having the possibility to watch the recorded meeting, please visit the website: <https://tiny.cc/2wai>.

After the experiences of the first and second workshops, and taking into account the growing number of proposals and all the activity that is revolving around inclusive astronomy projects, with a high demand in various communities, we consider it pertinent to be able to carry out new versions of the Workshop. It will stand as the perfect moment to meet new actors, technological tools and their applications, the state of the art, as well as the needs, problems and challenges that continue to appear, but also to be able to decisively stimulate personal interrelations and cooperation in the projects that are continue to carry out. A scenario like LARIM, held every three years, may be the perfect moment to integrate the international community around the discussions on the best way for astronomy to achieve the goals of accessibility and inclusion that we all hope for.

Santiago Vargas, Beatriz García, Gary Hemming, Sonia Duffau, Nicolás Vázquez, and Angela Pérez