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IAU Office of Astronomy for Education

OAE Center Italy

## Annual Report 2022



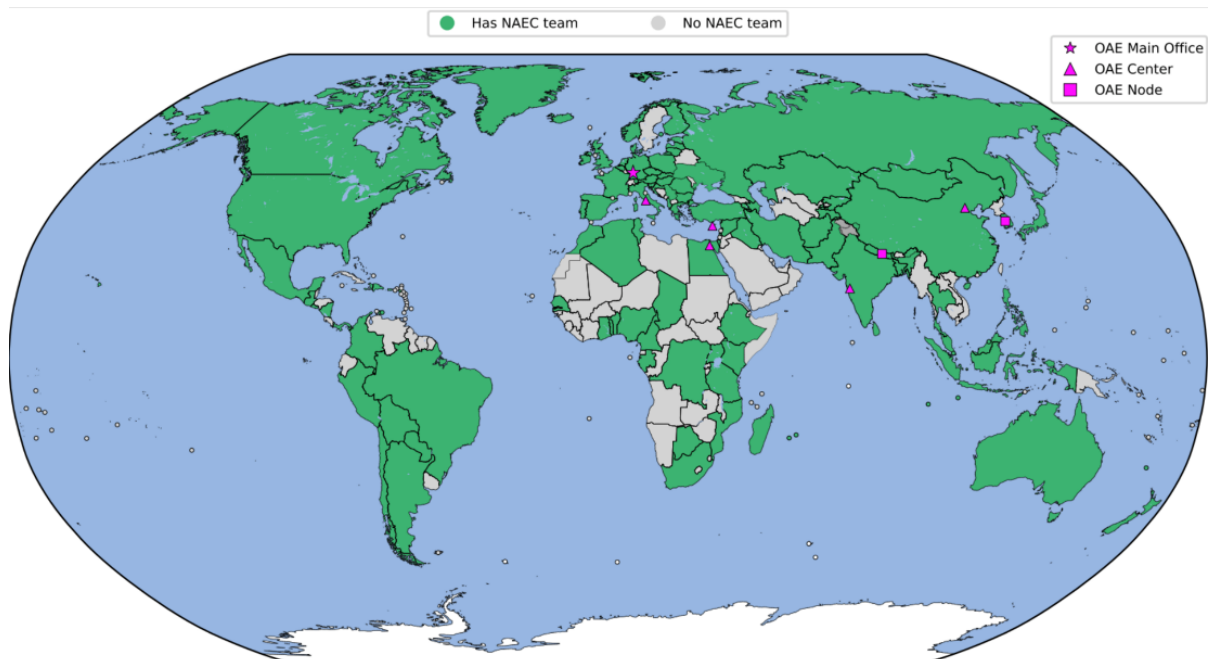
**I-OAE** is a joint project of a consortium of Italian partners (INAF, the Italian Astronomical Society and the University of Rome Tor Vergata), led and represented by INAF and the IAU OAE.

I-OAE is operated by INAF.

Host Institution: INAF - Istituto Nazionale di Astrofisica, Osservatorio Astronomico di Roma

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The worldwide map of the IAU National Astronomy for Education coordinators (NAEC). OAE Centers



are shown as triangles, while OAE Nodes are squares. The star indicates the HQ in Heidelberg. Centres are hosted in Italy, China, India, Cyprus, Egypt, while Nodes in France, Republic of Korea and Nepal. The OAE Center Italy was the first to be set up after the OAE IAU official assignment.

**Report compiled and edited by** Stefano Sandrelli, Sara Ricciardi, Stefania Varano, Livia Giacomini, Caterina Boccato, Giuliana Giobbi, Claudia Mignone, Anita Zanella

**Other contributions:** Silvia Casu, Francesca Cresta, Gianluigi Filippelli, Riccardo Leoni, Gloria Tirabassi, Rosa Valiante, Alessandra Zanazzi

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# Summary

EXECUTIVE SUMMARY	4
ANNUAL REPORT 2022	7
Introduction	7
Staff and budget	8
1. Professionalize astronomy education	12
1.1 The 4th Shaw-IAU workshop of Astronomy for Education	13
1.2 “Officina degli Errori” Pilot Programme	15
1.3 Educational path for transversal skills and professional orientation through Game-Based Learning	17
2. Provide access to good resources	19
2.1 astroEDU	20
2.2 Shared astronomical Glossary	22
2.3 Astrophotography contest	24
3. Promote astronomy in curricula	25
3.1 MIRTO - Mediterranean Informal Round Table – online	26
3.2 STEAM-MED - Lampedusa workshop on Astronomy Education 2022	28
3.3 Teacher Training Pilot Program (TTPP)	35
3.4 <i>Designing innovative public-engagement activities: a communication course for Ph.D. students at the University of Padova</i>	36
3.5 Castellaro Lagusello Astronomy Festival	37
4. OAE Networking	38
4.1 Participation in Expo 2020, Dubai, Italian Pavilion	39
4.2 Under the same Moon: building bridges through sky and astronomy	40
5. Spread the news	41
5.1 Under the same sky: an exhibition in Rome	42
5.2 Il Cielo itinerante – Italy shines	42
5.3 Universe World / EduINAF column	43
5.4 <i>Time machines</i> , an astronomy exhibition	43
5.5 Workshops	44
5.6 Press release, announcements and news	46



# EXECUTIVE SUMMARY

The IAU OAE Center Italy was established on the 3rd of March 2021, thanks to a Memorandum of Understanding signed by IAU, OAE and INAF. I-OAE is a joint project of a consortium of Italian partners, led, represented and operated by INAF.

## 1. Professionalize astronomy education

### 1.1 3rd Shaw-IAU workshop of Astronomy for Education

The 4th Shaw-IAU Workshop on Astronomy for Education was held online from November 15 to 17, 2022 under the title: *Leveraging the potential of astronomy in formal education*. Some sessions and a workshop about astroEdu were organized by I-OAE members, while five of us also took part in the Scientific Advisory Committee.

### 1.2 Officina degli errori pilot Programme

The project "Officina degli Errori pilot project was adopted by I-OAE as a kick starter for future communities of practices, co-design experience with teachers and STEAM learning at school. The project was completed last June and we are now working so as to allow schools in Italy to adopt this program in a more autonomous way. The activity will be carried on with pupils from February to June 2023.

### 1.3 Educational path for transversal skills and professional orientation through Game-Based Learning

INAF has started a co-design process together with game scientists of the Game Science Research Center (GSRC), which led to the creation of a board game, named PIXEL, Picture (of) the Universe". PIXEL simulates the world of scientific research in Astrophysics and emphasises the importance of studying celestial objects at increasingly higher resolutions.

## 2. Provide access to good resources

### 2.1 astroEDU

One of us (Livia Giacomini) is Editor-in-Chief of the global platform since April 2022, while we have also a representative in the Steering Committee. A reorganisation of the platform (English and Italian) soon started and is still being carried out.

### 2.2 Shared astronomical glossary

OAE-I contributed to the OAE initiative aimed at compiling an astronomical multilingual glossary and to share it on the OAE platform as an educational resource.

### 2.3 Astrophotography contest

OAE-I collaborates with the organisation of the *Astrophotography contest* launched by OAE under the coordination of Eduardo Penteadó, by funding it with 5000 euros and by supporting the Committee and the Jury.

### **3. Promote astronomy in curricula**

#### **3.1 MIRTO - Mediterranean Informal Round Table online**

The MIRTO project 's final goal is to build a collaborative environment on a permanent basis for multicultural, trans-disciplinary projects, in order to highlight the cultural richness of those areas, and to promote activities supporting astronomy education. MIRTO is focused upon all the countries of the Mediterranean area, and aims at encouraging cooperation with meetings, training courses, formation activities and other initiatives. It required the creation of a network of NAECs and other stakeholders (mainly NOCs) in the area.

#### **3.2. STEAM-Med: a co-design for Med Children**

STEAM-Med is a global effort coordinated by I-OAE to co-design an educational path for children in the approximate age-range 6-12 in the Mediterranean area: a set of activities which will explore a concept, or an idea in Astronomy / Astrophysics / Physics, by mixing and matching different methods / practices / instruments. The results will be published on the OAE website and shared in a regional summer school. The co-design process will be documented and - if successful - could be applied to other communities.

#### **3.3 Teacher Training Pilot Program (TTP)**

OAE-I collaborates with the organisation of the *Teacher training pilot program* launched by OAE, providing additional fundings, supporting the Committee and the Jury with a member of OAE Center Italy for each category. 21 project from all over the World were approved and financed.

#### **3.4 Designing innovative public-engagement activities: a communication course for Ph.D. students at the University of Padova**

We proposed a 16-hour long course for the PhD students of the Physics and Astronomy Department of the University of Padova, dedicated to "Designing innovative public engagement activities". The activities have been presented by the high-school students at the Astronomy Festival, which took place in Castellaro Lagusello (Italy) on June, 10-12.

#### **3.5 Castellaro Lagusello Astronomy festival**

We organised the second edition of the Astronomy Festival, which was held in Castellaro Lagusello (Mantova, Italy) on June 10 - 11 - 12, 2022. All the activities were outdoor and The Festival has been visited by about 4000 people.

### **4. OAE networking**

#### **4.1 Participation in Expo 2020, Dubai, Italian Pavilion**

On March 16, 2022, *Let's light up the skies of the world* took place in the Italian Pavilion of the 2020 EXPO in Dubai. It was organised by OAE Center Italy and INAF,

and foresaw a hands-on laboratory for the pupils of local schools and a roundtable on the topic *Astronomy for Teaching: from theory to practice*, which took place both in person and in live streaming with international guests.

#### **4.2 Under the same Moon: building bridges through sky and astronomy**

In March 2022 a workshop dedicated to the fundamentals of astronomy, astrophysics and observation of the Moon was held at the Great Mosque of Rome to establish a new model of sustainable relational development, through dialogue, culture and science.

### **5. Spread the news**

#### **5.1 Under the same sky: an exhibition in Rome**

OAE-I supported the exhibition *Under the same sky* within the *Point of Views* festival at “Palazzo delle Esposizioni”, in Rome. It included various stations of the IAU Inspiring Stars exhibition.

#### **5.2 Il Cielo itinerante – Italy shines**

*I cielo itinerante* is a project aimed at carrying culture where it is usually absent or weak. It eventually reached 50 locations. From March until October it involved all Italian Regions. About 2000 kids were engaged in the activities.

#### **5.3 Universe World / EduINAF column**

Universe World is a regular column in EduINAF, the online outreach and education magazine of INAF, featuring interviews with astronomy and science educators, communicators and researchers active in public engagement around the world

#### **5.4 Time machines, an astronomy exhibition**

An agreement was confirmed in order to organise *Time machines*, a temporary exhibition on the frontiers of research in Astronomy at Palazzo delle Esposizioni, in Rome, in 2023. OAE-I will provide funds for the design of inclusive educational activities

#### **5.5 Workshops**

A list of national and international workshops with I-OAE contributions (talks, panels, posters and so on)

#### **5.6 Press release, announcements and news**

A list of national and international release, announcements and news dealing with I-OAE activities

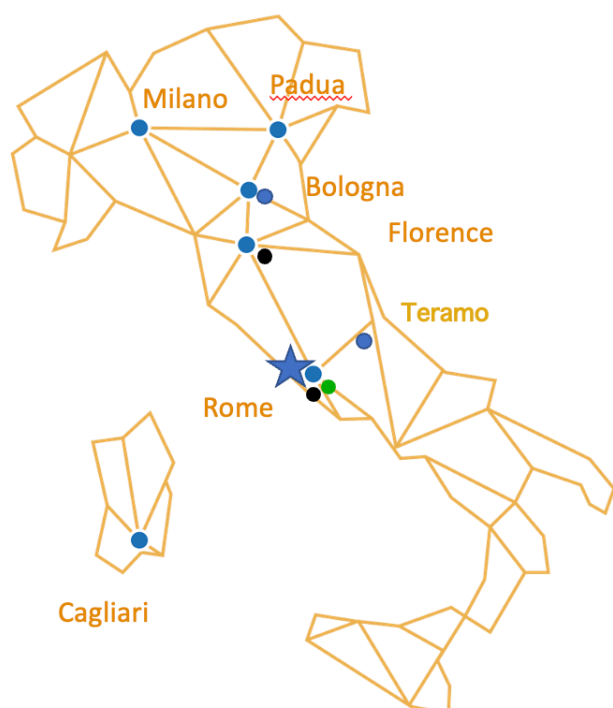
# ANNUAL REPORT 2022

## Introduction

The IAU is the International astronomical organisation which brings together more than 12000 active professional astronomers from more than 100 countries worldwide. Its mission is to promote and safeguard astronomy in all its aspects, including research, communication, education, and development, through International cooperation. The IAU also embodies the internationally recognised authority for assigning designations to celestial bodies and the surface features on them. Founded in 1919, the IAU is the world's largest professional body for astronomers.

In December 2019, the IAU established the Office of Astronomy for Education, also known as OAE, an office devoted to the use of Astronomy as a tool for growth and learning in several educational frameworks and contexts, located in Germany.

The IAU OAE Center Italy (hereinafter I-OAE) was established on the 3rd of March



2021, thanks to a Memorandum of Understanding (hereinafter OAE-MoU) signed by three parties: IAU, the Office of Astronomy for Education and INAF.

I-OAE is a joint project of a consortium of Italian partners, led and represented by INAF and of the IAU OAE, and is operated by INAF. The Italian partners are INAF, the Italian Astronomical Society (SAIt) and the University of Rome Tor Vergata (ToV).

INAF may change the roster of partners in coordination with the IAU OAE.

The I-OAE is formally located at INAF-Osservatorio Astronomico di Roma. It is part of the IAU OAE structure and contributes to the implementation of the IAU OAE mission.

During 2022, the I-OAE structure was confirmed with small changes as regards FTE and personnel.

## Staff and budget

### Staff

The members of I-OAE during the 2022 are listed in table 1. Some of them were formally assigned to I-OAE by the Italian partners. Other volunteers joined I-OAE, under the supervision of the Head and the officers, with the approval of the whole staff. Since June 2022, two more temporary staff members joined the office, thanks to an agreement between Università di Milano Bicocca and Inaf-Osservatorio astronomico di Brera. Claudia Mignone, Ginevra Trinchieri and Lucio Angelo Antonelli (INAF) support I-OAE with a formal contribution of 0 FTE.

An additional support of 0.2 FTE was provided by Inaf with administrative, technical and management support (mainly Giorgia Ortolani, INAF Roma and other administrative department members in other INAF institutes), for a total FTE of 4,96.

Table 1: members, roles and FTEs in the I-OAE

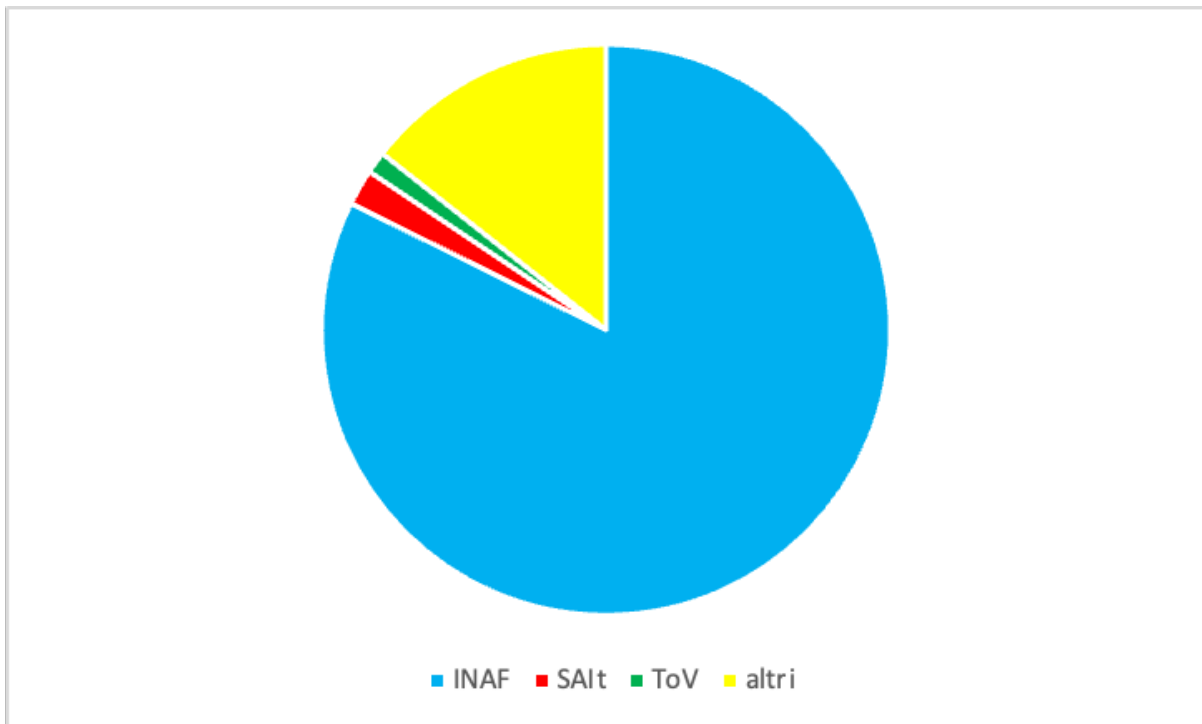
Name	Role	Position	FTE	Institution, city
Stefano Sandrelli	OAE Center Italy Manager	Staff	0.6	INAF, Milano
Sara Ricciardi	OAE Center Italy deputy Manager and officer: technology and innovation in education	Staff	0.5	INAF, Bologna
Stefania Varano	Officer: equal opportunity and access to culture	Staff	0.5	INAF, Bologna
Livia Giacomini	Officer: astroEDU implementation and consultancy	Staff	0.5	INAF, Roma
Giuliana Giobbi	Multi-language organisation and secretariat	Staff	0.5	INAF, Monte Mario
Gianluigi Filippelli	web editor	Staff	0.2	INAF, Milano
Elisa Di Carlo	member	Staff	0.1	SAIt, INAF Teramo

Rosa Valiante	member	Staff	0.1	SAIt, INAF Roma
Giuseppe Bono	member	Staff	0	TOV, Roma
Dario Del Moro	member, <i>quitted in April</i>	Staff	0.06	TOV, Roma
Administration	Various members	staff	0.3	INAF
Alessandra Zanazzi	primary school	Volunteer	0.2	INAF, Firenze
Anita Zanella	primary school	Volunteer	0.1	INAF, Padova
Claudia Mignone	international links	Volunteer	0.1	INAF, Monte Mario
Mayssa El Yazidi	international links	Volunteer	0.1	Università Padova
Riccardo Leoni	member	Volunteer	0.2	INAF Roma
Silvia Casu	member	Volunteer	0.1	INAF Cagliari
Caterina Boccato	member	Volunteer	0.1	INAF Padova
Francesco D'Alessio	member (from March)	Volunteer	0,1	INAF, Roma
Gloria Tirabassi	member (June-November)	Temporary member	0,5	Università di Milano Bicocca
Francesca Cresta	member (June-November)	Temporary member	0,1	Università di Milano Bicocca

The estimate of the formal FTE contribution by the three partners is the following (see graph below):

- INAF: 4,28 FTE (81% of the total FTE), with an increase of 0,4 FTE with respect to the MoU;
- SAIt: 0,2 FTE (4%)
- ToV: 0,06 FTE (1%),

We also have a voluntary contribution of approximately 0.7 FTE (14%) by the Università di Padova(now Leiden, since the transfer of Mayssa El Yazidi) and University of Milano Bicocca, which are not formally part of the network.



Since the MoU foresaw 1.5 FTE of contribution as an aggregate result from SAIt and ToV, we must conclude that the contribution of the partners in 2022 was 1.24 FTE less than the amount we agreed.

While we were finalising the present report, SAIt communicate some variations: Licia Troisi and Adriana Basile are the new SAIt representatives, while Rosa Valiante changed her position to a INAF volunteer.

### **I-OAE internal and joint meetings**

Online I-OAE members' meetings are scheduled on a weekly basis on the Google\_meet platform, with a duration of 1-2 hours each:

- on Wednesday at 14.30 CET: General communication and discussions
- on Thursday at 14.00 CET: Mediterranean activity
- on Friday at 14.00 CET: Primary school activity

The link is: <https://meet.google.com/xbv-ehes-rtv>

No in-person meeting was held during 2022.

Online joint meetings among OAE, Centers and Nodes are held on the Zoom platform, one per month, on Thursday at 14:00 CET. They last about 1-1.5 hours.

## **Budget**

The IAU Office of Astronomy for Education Center Italy can rely on a yearly budget defined by the MoU in 100 Keuro.

The budget is formally administrated by Roma Monteporzio under the Fu.Ob. 1.05.01.23.16 IAU Office for Astronomy Education-OAE Center Italy (ref. Stefano Sandrelli).

In the following month, the proper Expenditure Items were identified and formally defined as in the table below.

<b>Expenditure Items</b>	<b>Description</b>	<b>17/02/2022</b>	<b>31/12/2022</b>
1.01.01.01.009	Grant	15	0
1.03.02.02.001.01	missions	17	7
1.03.02.07.006	Software licenses	17	17
1.03.02.02.004.01	Communication, Outreach & Education	120	21,4
2.02.01.07.999	Hardware	3	3

For the main list of the actions (purchases, transfers or anything else), see Attachment 1. Budget.



# 1. Professionalize astronomy education

## 1.1 The 4th Shaw-IAU workshop of Astronomy for Education

The 4th Shaw-IAU Workshop on Astronomy for Education was held online from November 15 to 17, 2022 under the title: *Leveraging the potential of astronomy in formal education*.

Organized by OAE and supported by IAU and Shaw Prize Foundation, it was a joint effort among the Centers of Italy, China, India, Cyprus, Egypt and the Nodes of France, Republic of Korea, and Nepal.

The workshop was divided into 9 sessions, each devoted to an important topic in astronomy education. Each session consisted of 4-5 pre-recorded talks, 5-10 posters and a live roundtable, moderated by the session chairperson. Talks were delivered either in English or in the speakers' mother tongue and captioned (in English) in advance, while the round tables were transcribed live. Every session was repeated at two different times, according to the very different time zones of workshop participants.

The preliminary 221-page proceedings document is available online in pdf format: <https://owncloud.gwdg.de/index.php/s/RQjMBL5XlonrxSI>

### **Sessions, organisers and Committees**

A session was completely organised by I-OAE members, who also took part in another session among colleagues from other Nodes and/or Centers. A workshop about astroEdu was also organised by the OAE-I

5 I-OAE members took part in the Scientific Advisory Committee.

*Teaching astronomy in primary schools: How, why and in which context*

Organisers: Sara Ricciardi (OAE Center Italy), Silvia Casu (OAE Center Italy), Alessandra Zanazzi (OAE Center Italy)

*Gravitational waves, black hole shadows and exoplanets: Can we make room for cutting-edge results in schools?*

Session organisers: Anna Sippel (OAE Heidelberg), Niall Deacon (OAE Heidelberg), Stefano Sandrelli (OAE Center Italy), Surhud More (OAE Center India), and Rosa Doran (NUCLIO, Portugal)

*AstroEDU workshop*

Session organisers: Livia Giacomini (OAE Center Italy), Giulio Mazzolo (astroEDU), Edward Gomez (astroEDU), Gwen Sanderson (OAE)

**Scientific Advisory Committee:** Mohamad Alassiry, Ali Al-Edhari, Mashhoor Al-Wardat, Asmita Bhandare, Suresh Bhattarai, Estelle Blanquet, **Silvia Casu**, Ahmed Chaalan, Merryn Cole, Hassane Darhmaoui, Niall Deacon, Rosan Doran, Francois Dulieu, Michel Faye, **Livia Giacomini**, Edward Gomez, Violette Impellizzeri, Jacob Tolno Israel, Li Jian, Cui Jie, Awni M. Khasawneh, Colm Larkin, Hamid El Naimiy, Tshiamiso Makwela, Giulio Mazzolo, Farseem Mohammedy, Surhud More, Thomson Mucavela, Assia Nechache, Li Peng, Eduardo Penteado, Frederic Pitout, Markus P.ssel, Gilles Remy, **Sara Ricciardi**, Emmanuel Rollinde, Somaya Saad, Gwen Sanderson, **Stefano Sandrelli**, Hyunjin Shim, Anna Sippel, Jungjoo Sohn, Abdelhafidh Teyehi, **Alessandra Zanazzi**, Jing Zhu.



## 1.2 “Officina degli Errori” Pilot Programme

*Coordinator: Sara Ricciardi*

The project "Officina degli Errori pilot project was adopted by I-OAE as a kick starter for future communities of practices, co-design experience with teachers and STEAM learning at school.

In 2022, it was carried out on 5 schools (4 in the Emilia Romagna Region and one school in Napoli). Teachers had the chance to have 5 workshops facilitated by experts, setting up a tinkering environment in their own classes. They observed the facilitation and got acquainted with materials. We set up a possible documentation protocol to facilitate this task. Teachers could also use other methods/protocols.

The project was completed last June and we are now working so as to allow schools in Italy to adopt this program in a more autonomous way.

On September 5 and 6, 2022, we met all headmasters, teachers, educators, and



experts who had taken part in the project at the leading school in Bologna. For the first time, teachers and a delegation of students from Naples met their peers in Bologna. Teachers presented their work, and we discussed open issues, well as the next steps of our co-design endeavour. This project will

continue in Bologna, where we will develop some case studies and resources.

We are also designing activities in other Italian cities, in order to understand and adjust *tinkering* as an intense moment of investigation in formal contexts.

We are working with 6 teachers in Bologna and 6 teachers in Rome, where we hosted a hands-on professional development course in November.

They are planning to work with Light-play workshops, and connect this practice with educational units about the physics of light.

We will follow those teachers, providing them with online mentorship and materials. We also have Education students (Master and PhD) willing to dig in *tinkering* practices and their use in primary school, not as a stand-alone workshop, but rather as a starting point for an inquiry-based education.

This activity will be carried on with pupils from February to June 2023.

## 1.3 Educational path for transversal skills and professional orientation through Game-Based Learning

*Coordinator: Stefania Varano*

For more than a century, many pedagogical studies have pointed out how the game improves disciplinary and socio-emotional skills. Moreover, it enforces our awareness of which strategies and dynamics are the most effective, both in playing and in other contexts of life.

Game-based learning (GBL) is the discipline that studies how games can be placed in an educational context, and, in general, as tools for improving our knowledge of disciplines, as well as of methods and other soft- and life-skills.

INAF has been experimenting with GBL as an innovative means of accessing STEM knowledge and developing transversal competences, spanning across both



disciplines and daily life. Aiming at cross-fertilizing different professionalities involved in this research field, and in order to design valid and meaningful educational resources, in September 2020 INAF has started a co-design process together with game scientists of the Game Science Research Center (GSRC), which led to the creation of a board game, named PIXEL, "Picture (of) the Universe" aiming, among other things, at the promotion of GBL techniques in schools.

The game-design phase formally ended in May 2022, when the game was presented in its prototype version, with in-house

(semi-professional) graphics, printed with INAF funds, at the major Italian national convention about games, PLAY, in Modena (Italy).

PIXEL simulates the world of scientific research in Astrophysics and emphasises the importance of studying celestial objects at increasingly higher resolutions.

In January 2022, INAF within the collaboration in I-OAE and GSRC started designing an educational path aiming at using the board game PIXEL to train students in game-based learning techniques, and to evaluate the effectiveness of games as an innovative teaching/learning tool in STEM subjects.

From September to November 2022, we defined the professional tools for the qualitative evaluation of such game-based learning processes, in order to assess their effectiveness in improving the participants' mindset about science and its processes, while providing a more aware and in-depth approach, in view of fostering their scientific citizenship skills. We involved a team of Psychologists and worked with them, so as to set the most valuable tools of assessment and map out the data-analysis procedure.

The educational path started in December 2022 in Florence, which became the first of 5 Italian cities involved in the project. The course will be carried on by INAF and GSRC experts in a few schools of 5 Italian cities (Bologna, Cagliari, Firenze, Rome and Palermo). The participants will also be introduced to the main concepts of the astronomical observation techniques conveyed through the game PIXEL.

2. Provide access to good resources



## 2.1 astroEDU

*Coordinator: Livia Giacomini*

The Italian version of the platform was launched in 2017 by the Italian National Institute for Astrophysics (Istituto Nazionale di Astrofisica — INAF) and the Italian Astronomical Society (Società Astronomica Italiana — SAIt) with the support of the International Astronomical Union (IAU) and Leiden Observatory (see <https://www.iau.org/news/announcements/detail/ann17035/> for details).

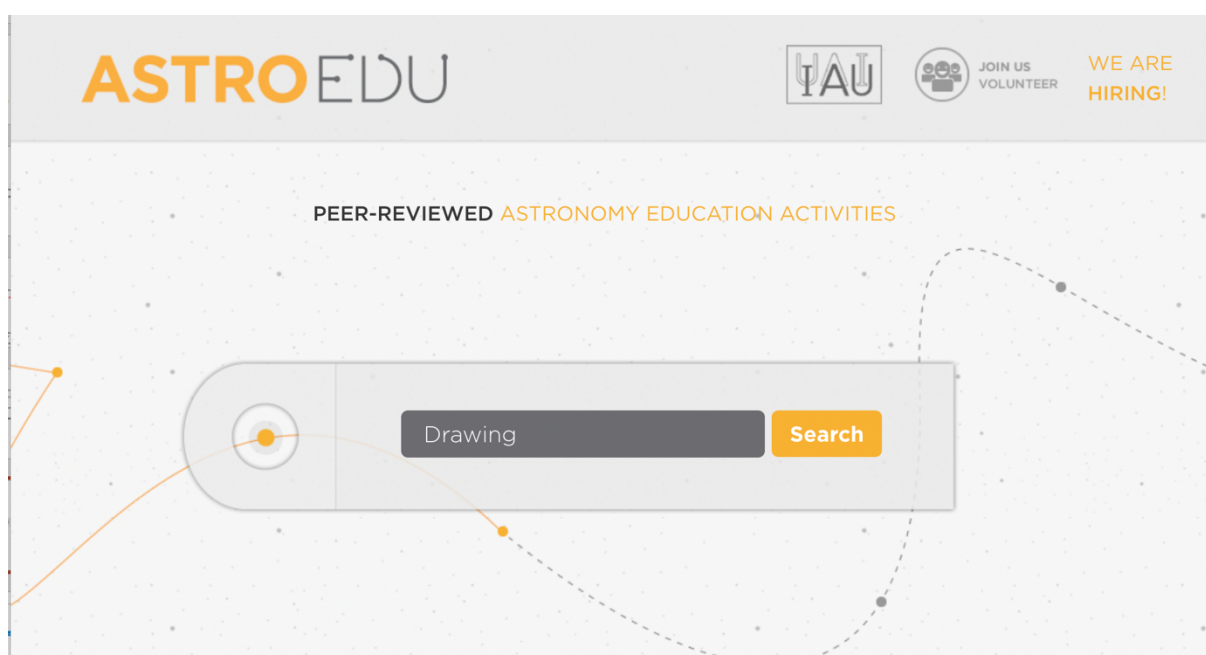
Stefano Sandrelli (INAF) is one of the 3 members of the astroEDU International Steering Committee.

Livia Giacomini is Editor-in-Chief of the global platform since April 2022.

### **astroEDU ITA**

From January to March 2022, the editorial board of astroEDU ITA met monthly:

- to detect and solve technical issues of the website, in collaboration with astroEDU international editorial board;
- to publish new educational activities;
- to organise a board of Italian teachers who volunteer to work as reviewers (we met and talked with 14 teachers who were involved in the activities);
- to disseminate activities in the Italian community.



## **astroEDU**

On April 1, Livia Giacomini became editor-in-chief of astroEDU international and a reorganisation of the platform (English and Italian) soon started and is still being carried out.

Starting from April 1, 2022, the Management Board of the Editorial Board of AstroEDU was established, with Livia Giacomini (editor-in-chief), Edward Gomez, Giulio Mazzolo (Associate Editor), and Gwen Sanderson (Assistant editor).

Livia Giacomini maintained her role of AstroEDU ITA editor-in-chief on an interim basis. The Management Board meets regularly once a week.

From April on, the Management Board of the Editorial Board launched the following tasks:

- Reorganisation of AstroEDU: the Management board is in the process of defining the publication procedure, the editorial board (including the board of reviewers), and its roles. It is also starting a review process of existing activities.
- Technical review of the website: the website has been rewritten with a completely new CMS (Wagtail), which makes the translation of activities easier, and solves many of the previous technical problems. The new website has been published online, and all activities have been imported into the new website - both in English and Italian;
- The revision of already published activities (both in English and Italian), needed to check the scientific and educational content and for uniformity, is ongoing and will be completed by the end of February 2023.
- Publication of new activities: 6 new activities which had been submitted in the last few years have been reviewed and published since April 2022 and a number of authors have been contacted to propose new activities for future publication.

AstroEDU will publish some of the activities which were co-designed in the Lampedusa Workshop. It is also in contact with the Organizers of the Astrophotography Contest for the use of the winning photos in educational activities.

- Communication and publicity: AstroEDU has been presented in a number of scientific congresses and articles.

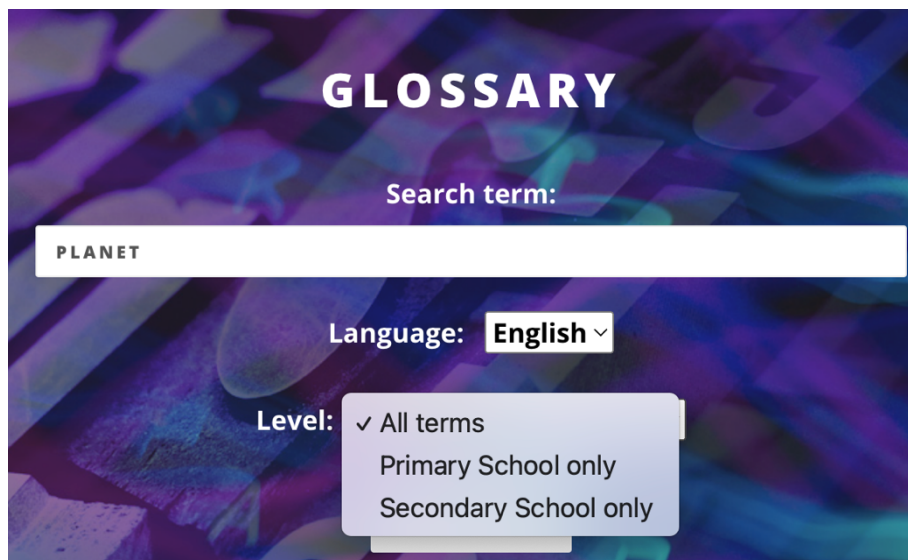
## 2.2 Shared astronomical Glossary

*Coordinator: Giuliana Giobbi*

OAE-I contributed to the OAE initiative aimed at compiling an astronomical multilingual glossary and to share it on the OAE platform as an educational resource.

First of all, we translated and revised the captions of the 2021 IAU-OAE Astrophotography context. Later on, as new glossary terms were added, we started with their translation and review.

We formed a subgroup dealing with the Italian translation of the OAE Multilingual



glossary.

We have been asked to select reviewers with school experience in this case, therefore we informed our team of the different “perspective” of this area.

Also, OAE-I members might intervene in case a review is more addressed to science than to school aims.

We have asked and obtained the collaboration of INAF colleagues, most of them astronomers, for the translation and scientific revision of terms.

The team was finalised at the beginning of July 2022, with 7 translators and 10 reviewers. Moreover, a dozen Italian researchers working both in Italian and European Institutes volunteered to join the project as reviewers, for a total of 30 people, 17 of whom working at INAF (Italian National Institute for Astrophysics).

Here is a list of all INAF volunteers:

- Translators:  
Elena Ambrosi (INAF-Palermo), Antonino Dai (INAF - Palermo), Giuliana Giobbi (INAF - Rome), Valentina La Parola (INAF - Palermo), **Ciro Pinto** INAF

- Palermo), Fabio Pintore (INAF - Palermo), Francesco Salvestrini (INAF - Arcetri, Florence)

- Reviewers:

Niccolò Bucciantini (INAF - Arcetri, Florence), Rodolfo Canestrari (INAF - Milan), Silvia Casu (INAF- Cagliari), Giovanni Contino (INAF- Palermo), Melania Del Santo (INAF - Palermo), Antonino La Barbera (INAF - Palermo), Riccardo Leoni (INAF - Rome), Emanuele Nardini (INAF - Arcetri, Florence), Rosa Valiante (INAF- Rome), Anna Wolter (INAF-Milan).

In June OAE completed the review of the Glossary using the OAE custom-built access to the system.

After solving a few technical problems with the website through the help of the OAR responsible for the project Niall Deacon, with the help of the team of volunteers - both translators and reviewers, we managed to complete our work on all the captions of the winning photos of the 2021 edition of the Astrophotography Context in Italian.

Last month (December 2022), we were informed that the new captions of the winning photos of the 2022 edition of the Astrophotography Context were also available for translation and review, therefore we recently started working on these pages as well.

Therefore, the translation and review of the 2021 Astrophotography captions were completed, whereas the glossary terms are being translated and reviewed as soon as they become available on the website pages, and the captions of the winning photos of the 2022 edition are in the process of being reviewed. Given the deadline given for further comments (28 days), we expect they will be finalised by the end of this month.

## 2.3 Astrophotography contest

*Coordinator: Livia Giacomini*

OAE-I collaborates with the organisation of the *Astrophotography contest* launched by OAE under the coordination of Eduardo Penteadó, funding it with 5000 euros and supporting the Committee and the Jury. OAE-I also spread the news in the Italian community.

The contest closed at the end of June. We received a total of 201 images and 16 videos from 31 different countries.

In Autumn, the selection procedure of the winners of the Astrophotography Contest ended with the selection of: 21 images to be awarded; 14 images to be published without a prize; 3 videos to be awarded; 3 videos to be published without a prize.

The winning pictures and videos with detailed captions were published on December 15 with an IAU announcement. AstroEDU and Eduardo Penteadó agreed to work on the production of a few educational resources with the use of the winning pictures and videos, which should be published in AstroEDU at the beginning of 2023.

One of the winner: The Kingdom of Orion, by Carlos Zudaire, Spain



### 3. Promote astronomy in curricula

### 3.1 MIRTO - Mediterranean Informal Round Table – online

*Coordinator: Stefano Sandrelli*

The MIRTO project is focused on all countries in the Mediterranean area: Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Montenegro, Morocco, Slovenia, Spain, Syria, Tunisia, and Turkey.

We wish to encourage a large cooperation in the area, with online meetings, training courses, and other teaching activities which can be designed together with all the NAECs and the stakeholders of all the interested countries.

The final goal is to build together a collaborative environment on a permanent basis for multicultural, trans-disciplinary projects, in order to highlight the cultural richness of those areas and promoting activities which support astronomy education in the context of a multicultural society, intercultural and interreligious dialogue, environmental issues, and human rights, in line with the UN Sustainable Development Goals.

This MIRTO project is very simple: our goal was to establish a regular informal meeting area, where we can get to know each other.

- The first step was the creation of a large mailing list of Med NAECs and interested NOC - in those countries with no official NAEC yet.
- Every week, from December 2021 to February 2022 OAE-I organised a 2 hour - online meeting in which at most NAECs from 4 different countries introduce themselves and their work. In the second part of the meeting, we discussed freely about the situation in our countries and the expectations from the OAE office. A final 30-min question-time concludes the meeting. Everyone can comment or ask questions.

The link was widely spread to all the Med Network and every NAEC team member is welcome to take part in it.

The Round Tables were the following

- December 2<sup>nd</sup> 14:00 16:00 CET - speakers: Victor Bar (Israel)
- December 16<sup>th</sup> 14:00 16:00 CET - speakers: Mirjeta Domi (Albania), Aysegul Yelkenci (Turchia)
- December 22<sup>nd</sup> 14:00 16:00 CET - speakers: Danijela Takač (Croatia), Rosa Doran (Portugal), Jovan Mirkovic (Montenegro), Tareq Alkhateb (Syria)
- January 12<sup>th</sup> 14:00 16:00 CET - speakers: Juan Angel Vaquerizo (Spain), Stefano Sandrelli (Italy), Colm Larkin (Cyprus)
- February 9<sup>th</sup> 14:00 16:00 CET - speakers: Zakaria Belhaj (Morocco), Dunja Fabian (Slovenia)

We met NAECs from Albania, Algeria, Croatia, Cyprus, Egypt, Israel, Italy, France, Greece, Montenegro, Morocco, Palestine, Portugal, Slovenia, Spain, Syria, Tunisia, Turkey



## 3.2 STEAM-MED - Lampedusa workshop on Astronomy Education 2022

*Coordinators: Sara Ricciardi, Stefano Sandrelli*

OAE Center Italy coordinates a global effort for children in primary and junior secondary schools (under 12 years old, U12) and a regional effort in the Mediterranean Area (primary and secondary schools, under 19 years old, U19). For this first large project, we chose to work at the intersection of those two areas.

### **Lesson learned @3rd Shaw-IAU workshop 21 and previous experiences**

We learned that people have different approaches and points of view. We realised that something meaningful for children in Argentina can be less interesting for children in Tokyo, as well as for someone living in a city or in a village.

Our idea was to create an educational path that could be interesting for children/school in the Mediterranean area. Something that can engage them, inspire them, make them feel a community.

We propose an Educational path because we would like to engage the children with a project, with a learning experience and we found out that to have a real and deep impact we need time and multiple experiences, this means it is needed to build projects that last months not days.

This is totally different with respect to preparing a set of resources that teachers can use.

We wanted to produce an educational path for children in the approximate age-range 6-12, which will be - hopefully - enriched by other teachers in the world; not a single resource or a single workshop, but rather a set of activities which will explore a concept, or an idea in Astronomy/Astrophysics/Physics.

We are planning to continue this activity in the future, by involving different groups, selected according to their geographical regions or for a common interest.

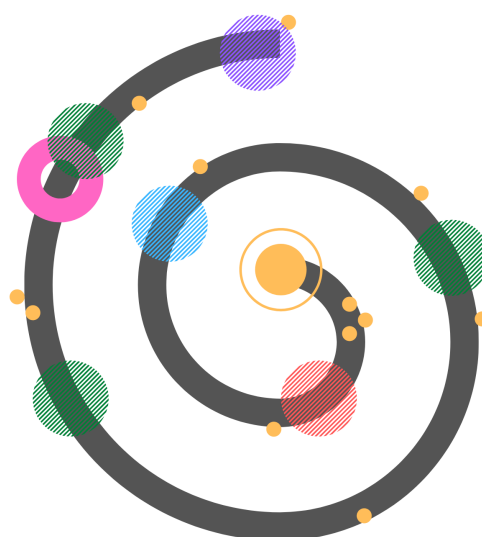
## Product-oriented or process-oriented?

We believe the most important part of this project is the process itself, because what we really want is to stimulate the Med community, nurture it and generate space where people from the Med Area can work together in AE. The challenges of this project are obvious, because the geography of the Med does not correspond to a uniformity of language, cultural heritage or religion; different countries may also have political differences, people may come from different educational backgrounds with diverse values and positions.

## Process/timeline

- **Kick Off** 1/12/21: start of the process. Meetings were carried on in order to get to know one other and better define our project. We asked to provide info on NAEC past experience
- **Idea Selection** Beginning of February: the newly-formed Mediterranean Network selected a general idea or theme for the co-design (two meetings in February). The goal was to select an idea that can be meaningful for children in the Mediterranean
- **Production and iteration** By (early) May each team selected their own materials and resources, which will compose the educational activity
- **Regional workshop** In July, we had a regional workshop where we shared, tested and enriched our resources.
- **Sharing with a global community** At the end of the process (February 2023) this educational path/project will be published in the OAE website as a common effort of the Med-Area and as a common effort of all the NAECs and NAECs who gave their contribution.

Network set up  
First round of co-design (idea)  
Resources ready to be shared within Med  
Sharing reflection and iteration  
Regional School  
Publication on OAE website



## Goals in terms of Product

- Regional school (July)
- educational path published (2023)
- at least 2 resources on AstroEDU (2023)

## Goals in terms of Process

- Report about communication
- paper or document about the Med “community of learning”
- interview with NAECS
- documentation



## Detailed description

From January to March, we choose together to carry on a co-design process about LIGHT. We coordinated two rounds of codesign. In each round, two NAECS representatives (from two different countries) worked together. Each NAECS produced its own resource and incorporated suggestions and ideas from the paired country. For the first round, we formed pairs going for similarities; we paired NAECS with the same language (e.g. Syria Morocco, Lebanon Egypt), or else we paired NAECS who already worked together (Croatia Slovenia).

In the second round - on the other hand - we paired NAECS who were apparently not so connected (Syria Turkey, Lebanon France, Morocco Croatia, Portugal Palestine).

The Italian team facilitated the work by setting up moments of sharing and reflections. We have produced at least 8 resources in the process.

In the meantime, we organised online meetings in which each team had the chance to present in person their ideas developed through the co-design process. In April and May, we carried out the third and final round of codesign. Participating countries have been paired with new partners, by mixing up the groups, in order to keep enhancing the exchange process. The couples in this final round were: Palestine-Turkey, Lebanon-Slovenia, Morocco-Portugal, Croatia-France. The last one of the codesign groups consisted of 3 countries (Syria, Egypt and Spain), in order to welcome and include Spain, that previously had quit the project and came back at this stage, proposing an activity. As for the previous round, OAE-Italy facilitators helped organise the co-design meetings and provided support for the interaction, inviting each participant to suggest possible implementation and tailoring strategies to the partner country. In preparation of the live workshop in Lampedusa, we set up an online form with logistic details, questions about food allergies, habits and materials needed for the workshop. We also asked OAE for a grant, so as to allow some more participants to attend the workshop.

The workshop was held in-person in Lampedusa (Italy) in the week from July 3 to 9.

23 National representatives attended the workshop and 14 Mediterranean countries shared the whole process: Cyprus, Croatia, Egypt, France, Italy, Lebanon, Morocco,



Palestine, Portugal, Syria, Slovenia, Spain, Tunisia and Turkey, Montenegro and Greece. Some of the representatives could not attend the workshop because of

personal or professional reasons, but we wish to underline that Palestine's representative could not attend it because of the overwhelming difficulty to obtain a VISA.

The Program of the workshop was the following:

	<b>Monday 4th</b>	<b>Tuesday 5th</b>	<b>Wednesday 6th</b>	<b>Thursday 7th</b>	<b>Friday 8th</b>	
<b>8:30 – 9:00</b>	Welcome, program and logistics	Co-design resource: Syria	<i>Discussion and debrief</i>	<i>Discussion and debrief</i>	Connecting the dots: Possible educational paths	
<b>9:00 –9:30</b>	Co-design resource: Turkey	<i>Discussion and debrief</i>				
<b>9:30 –11:00</b>			Co-design resource. Spain <i>Discussion and debrief</i>	Co-design resource. Portugal <i>Discussion and debrief</i>		
<b>11:00 – 11:30</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	<b>Break</b>	
<b>11:30 – 13:00</b>	<i>Discussion and debrief</i>	<i>Discussion and debrief</i>	Co-design resource. Morocco <i>Discussion and debrief</i>	<i>Discussion and debrief</i>	<i>Discussion and debrief (evaluation)</i>	
<b>13:00 – 15:00</b>	<b>Lunch time</b>	<b>Lunch time</b>	<b>Lunch time</b>	<b>Lunch time</b>	<b>Lunch time</b>	
<b>15:00 – 15:30</b>	Orienteering and naturalistic activity  Tour of the island and visit at the turtles recovery centre	Co-design resource. Italy	Co-design resource. Lebanon-Egypt	Co-design resource. France	Free time	
<b>15:30 – 16:00</b>				<i>Discussion and debrief</i>		
<b>16:00 – 16:30</b>				Discussion and debrief		<b>Co-design resource: Palestine</b>
<b>16:30 – 17:00</b>						
<b>17:00 – 18:00</b>			<i>Discussion and debrief</i>	<i>Discussion and debrief</i>		<i>Discussion and debrief</i>
<b>18:00 – 19:00</b>			Mediterranean Hope e Lampedusa Solidale	lby Library of Lampedusa: activities for children		<i>Discussion Co-design closing Publication</i>
<b>19:00 – 21:30</b>	<b>Dinner time</b>	<b>Dinner time</b>	<b>Dinner time</b>	<b>Dinner time</b>	<b>Dinner time</b>	
<b>From 21:30</b>	Free time	Co-design activity: Croatia & Slovenia	Co-design activity: Croatia & Slovenia	Public astronomical night Intercultural storytelling about constellations and stars (multi language).	Spazio M cunto and opera of sicilian <i>pupi</i>	

In presence activities alternated with open discussion among peers in a truly co-designed experience.

Finally, we engaged the participants in the organisation of a multicultural star-gazing night, asking them to think about and write down myths and stories which - in their culture - are usually related to the constellations visible from Lampedusa during the period of the forthcoming workshop.



## **STEAM Med**

Lampedusa 4-9 July 2022



#astronomyforabetterworld

Lampedusa is particularly relevant for all Mediterranean countries, because it is a place where migrants from Africa land, headed for northern Europe: a place of encounter, a symbol of meeting and dialogue. A multicultural historical venue.

OAE Center Italy covered the expenses associated with the whole workshop: accommodation in a simple but comfy location ([www.laroccia.net](http://www.laroccia.net)), breakfast and dinner, transportation from and to Lampedusa downtown. OAE Center Italy also covered the cost of the flights for those participants who do work neither in Universities nor in Public Institutes bearing their expenses. OAE Hq provided one grant too. The total expenses were about 55k euros.

A short video was released for the IAU GA. Between the months of September and December an evaluation of the video was carried out among seven NAECs of

different countries. Moreover, we run two focus groups among INAF researchers, in order to find out which values were best communicated by the video.

The results are described in a Master in Science Communication Thesis by Gloria Tirabassi. The video released for the IAU GA and spread through IAU basecamps:

<https://www.youtube.com/watch?v=Nm7bpsfgkMw&t=165s>

From September, we worked to finalise the Stem-Med educational activities, and we are going to complete this tranche of the project. We have been carrying out a co-design session discussing with NAEC the final shape of the documentation in order to serve at our best the target communities.

We are already thinking about possible dissemination in the National communities, by targeting teachers through the NAEC of member countries, and also opening the discussion with OAE Centres and Nodes through OAE. We have 6 activities ready to go (or almost there), and 4 other activities in a less defined shape. Those activities are in the process of being translated into Arabic, Turkish, Croatian, Slovenian, Italian, Spanish, and Portuguese, over and above English. Because of the large number of languages, we cannot directly host them in the AstroEDU website, and we are looking for hybrid solutions, for example: Zenodo multi-language files, and links to OAE websites and Astroedu dedicated pages. We are still discussing with Niall Deacon (webmanager of OAE website) and Livia Giacomini (editor-in-Chief of AstroEDU) . We also plan to re-engage NAECs from countries which did not take part in our project, or did not finalise their participation.



### 3.3 Teacher Training Pilot Program (TTPP)

*Coordinators: Sara Ricciardi, Stefano Sandrelli*

OAE-I collaborates with the organisation of the *Teacher training pilot program* launched by OAE under the coordination of Anna Sippel and Tshiamiso Makwela (OAE), supporting both the Committee and the Jury with a member of OAE Center Italy for each category.

The TTP had the initial goal to fund about 10 projects with a grant of 2000 euros each. Thanks to additional fundings of 10000 euros from OAE-I, which were specifically reserved for five projects from primary school level (up to 12 years), and to a revision of the candidate winners' needs, OAE succeeded in approving 21 projects instead of 10.

The contest was launched in April 2022 and OAE-I spread the news in the Italian community, while the winners were announced at the end of June.

In September, we discussed our participation in this program for next year within the Center.

Sara Ricciardi, Stefania Varano and Stefano Sandrelli took part in the Teacher Training Workshop "Astronomy Support for Primary School Curricula" - 8-9 October 2022 at Istanbul Kültür University, Atakoy, Istanbul in order to support and promote educational activity in this country and provide training about our proposed educational activity in the Stem-Med project (see paragraph 3.2).

**Teaching Teachers Pilot Program 2022**



### 3.4 *Designing innovative public-engagement activities: a communication course for Ph.D. students at the University of Padova*

*Coordinator: Anita Zanella*

We proposed a 16-hour long course for the PhD students of the Physics and Astronomy Department of the University of Padova, dedicated to “Designing innovative public engagement activities”. The course was led by Anita Zanella, with the participation and contribution of Caterina Boccato, Sara Ricciardi and Stefano



Sandrelli from the IAU-OAE Italy Center, and Federico Di Giacomo. The participants of the course were 8 international PhD students. They have been presented with some public engagement techniques (e.g., hands-on activities, coding, storytelling) and they have been guided in designing,

building, and testing their own activity. The students created five hands-on workshops - each of them 45 minutes long - targeting different age-groups (from 4 years-old kids to teenagers and the general public), all focusing upon the concept of "gravity". The participants of the course have in turn taught 55 high-school students how to deliver such workshops, as well as the relevant background astronomical knowledge. The activities have been presented by the high-school students at the Astronomy Festival, which took place in Castellaro Lagusello (Italy) on June, 10-12. Descriptions of the workshops have been written and uploaded on the INAF Play website (<https://play.inaf.it/>), where they are available for the use by teachers and students.

## 3.5 Castellaro Lagusello Astronomy Festival

*Coordinator: Anita Zanella*

We organised the second edition of the Astronomy Festival, which was held in Castellaro Lagusello (Mantova, Italy) on June 10 - 11 - 12, 2022. The title of the Festival was “Attractive Universe” and all the activities had “gravity” as a common thread. Some of the activities which we organised were an exhibition, hands-on workshops, outreach lectures, shows linking juggling and science, telescope observations of the Sun, the night sky, and the sunrise from a natural park with an archeological site (accompanied by live music and the storytelling of an archeologist), wall-mapping projections, projections of short mute movies (accompanied by live music) and historic newsreel about the launch of rockets and other astronomical news. In particular, the hands-on workshops had been developed



by the PhD students from the University of Padova during the PhD course “Designing innovative public engagement activities” and they were led during the Festival by high-school students, properly trained by the PhD students themselves, as well as by INAF astronomers.

All the activities were outdoor. The inhabitants of Castellaro Lagusello have taken part in the event by opening their courtyards and private villas to host the activities during the Festival. The Festival has been visited by about 4000 people coming from the main cities of Northern Italy, as well as from neighbouring towns. We collected their feedback through questionnaires, and the results were extremely positive. The scenic and graphic design of the Festival was done by a professional architect and scenographer. More details can be found on the [website](#) (Italian only).

A new edition of the Astronomy Festival for June 2023 is currently in preparation. The website will also be translated in English, German, and French by Giuliana Giobbi.

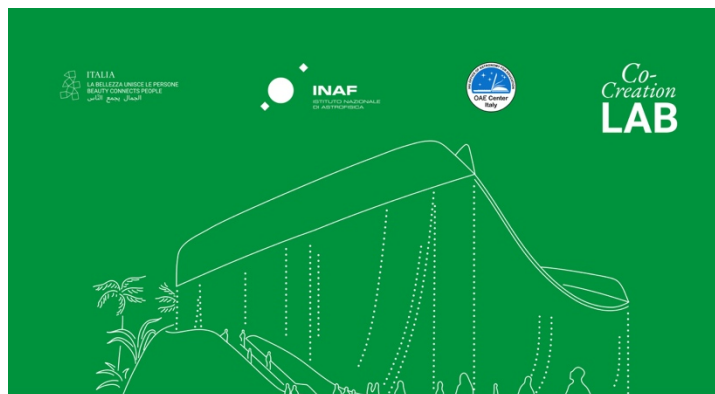
## 4. OAE Networking

## 4.1 Participation in Expo 2020, Dubai, Italian Pavilion

*Coordinator: Caterina Boccato, Stefano Sandrelli*

On March 16, 2022, *Let's light up the skies of the world* took place in the Italian Pavilion of the 2020 EXPO in Dubai.

The event, organised by OAE Center Italy and INAF, was constituted by two different moments: a hands-on laboratory for the pupils of local schools, and a roundtable on the topic *Astronomy for Teaching: from theory to practice*, which took place both in person and in live streaming.



*Let's light up the skies of the world*  
**Astronomy for Education: from theory to practice**  
**MARCH 16th 2022**

In the teaching lab, called *Let's light up the skies of the world*, about twenty girls from the *GEMS Al Khaleej International School*, an international school based in Dubai, lit up the stars with LEDs and paper circuits, inventing their own constellations and connecting

them to the legends and myths of different cultures of the world.

In the second part of the morning, a roundtable took place with Markus Poessel, Responsible for the IAU-OAE Office, Stefano Sandrelli and Sara Ricciardi of the OAE Center Italy, Hamid Al-Naimiy and Ilias Fernini of SAASST (Sharjah Academy for Astronomy, Space Sciences & Technology) and Pedro Russo of Leiden University/Ciência Viva. The roundtable was available online too – through the Expo social platforms.

## 4.2 Under the same Moon: building bridges through sky and astronomy

*Coordinator: Caterina Boccato*

In March 2022 a workshop dedicated to the fundamentals of astronomy, astrophysics and observation of the Moon was held at the Great Mosque of Rome under the MoU between INAF and the Islamic Cultural Center of Italy - signed in 2020. In the future of these activities, we plan to include the Imams' families.

The primary goal is to increase the scientific dissemination of astronomy in the Islamic community. We also want to promote a new phase of cultural and scientific dialogue, through education and information projects on astronomy, for both schools and society.

This establishes a new model of sustainable relational development, through dialogue, culture and science.

## 5. Spread the news

## 5.1 Under the same sky: an exhibition in Rome

*Coordinator: Stefania Varano*

OAE-I supported the exhibition *Under the same sky* within the *Point of Views* festival at “Palazzo delle Esposizioni”, a very important exhibition Area in Rome. The exhibition, scheduled from 21 to 23 January, was extended until February the 27<sup>th</sup> because of the public's appreciation. It included various stations of the IAU Inspiring



Stars exhibition.

The interaction of the children and the public with the stations have been studied in order to start the design of inclusive educational activities based on the exhibition.

The design is currently ongoing in order to create inclusive educational workshops and activities within the INAF exhibition *Time Machines* in 2023/2024 and the 2nd edition of the *Points of view* festival, which was programmed in order to overlap with the exhibition and to take advantage of INAF and I-OAE collaboration.

## 5.2 Il Cielo itinerante – Italy shines

*Coordinator: Stefano Sandrelli*



In October *Il cielo itinerante – Italy shines* completed its wandering through Italy with two stops in Campania. It eventually reached 50 locations. From March until October it involved all Italian Regions. About 2000 kids were engaged in the activities.

*Il cielo itinerante* is a project aimed at carrying culture where it is usually absent or weak. A small van with wonderful people travels throughout Italy with telescopes and laboratories for kids. It wanders

across areas where it is difficult to meet culture. It is addressed to children aged 12-14, but - in any case - anyone can join in and watch the sky through a telescope.

The original idea comes from Susan Murabana, who established *The Travelling Telescope*, a social enterprise dedicated to promoting astronomy in Africa. The project is organised by the association *Il Cielo Itinerante*, and supported by both INAF and OAE Center Italy. It is funded by private donations.

### 5.3 Universe World / EduINAF column

*Coordinator: Claudia Mignone*

Universe World is a regular column in EduINAF, the online outreach and education magazine of INAF, featuring interviews with astronomy and science educators, communicators and researchers active in public engagement around the world: from Brazil to Japan, from the UK to Uganda, from Mexico to Romania, from Sri Lanka to the Caribbean, and more. These long-form interviews cover subjects such as the status of astronomy, its public outreach and education in different countries and continents, major challenges that astronomy and science communicators and educators face nowadays around the world, and the variety of professional roles and (predominantly non linear) career paths that exist in these areas. Originally on a monthly basis, the column is now published every other month, both in English and in Italian. It is promoted by IAU-OAE through their communication channels.

Link to the interviews: <https://edu.inaf.it/category/in-english/universe-world/>

### 5.4 *Time machines*, an astronomy exhibition

*Coordinator: Caterina Boccato*

An agreement was confirmed in order to organise *Time machines*, a temporary exhibition on the frontiers of research in Astronomy at Palazzo delle Esposizioni, an historical exposition Area in the heart of Rome. The event is scheduled for the year 2023/2024.

OAE-I provides funds for the design of inclusive educational activities based on the exhibition. The dedicated fund amounts to 30 Keuros.



## 5.5 Workshops

### 5.5.1 International workshop Hack100, Trieste, June

*The Inaf avatar Martina Tremenda: a free and professional maverick.* Authors: Stefano Sandrelli, Sara Ricciardi, Silvia Casu, Anita Zanella, Stefania Varano, Alessandra Zanazzi, Filippo Tognazzo, Sandro Bardelli, Marco Castellani, Martina Cardillo.

### 5.5.2 IAU General Assembly, 2022, Busan

*Video: The first STEAM–Med Workshop on Astronomy for Education held on the island of Lampedusa:* <https://www.youtube.com/watch?v=Nm7bpsfgkMw>

*AstroEDU: a renewed open-access platform for peer-reviewed educational activities,* in OAE-3 session “Astronomy Education”: Tools and resources, August 4 Livia Giacomini; Edward Gomez; Giulio Mazzolo; Gwen Sanderson

### 5.5.3 CAP2022

OAE Center Italy was at CAP2022 with the following contributions:

*The Attractive Universe - an Astronomy Festival in a small village.* Authors: Anita Zanella, Federico Di Giacomo, Rachele Toniolo. Invited talk.

*The Inaf avatar Martina Tremenda: a free and professional maverick.* Authors: Stefano Sandrelli, Sara Ricciardi, Silvia Casu, Anita Zanella, Stefania Varano, Alessandra Zanazzi, Filippo Tognazzo, Sandro Bardelli, Marco Castellani, Martina Cardillo. Invited talk.

*The IAU OAE experience at Dubai Expo.* Authors: Caterina Boccato, Stefano Sandrelli, Alessandra Zanazzi, Livia Giacomini. Sara Ricciardi. Invited talk.

*The Audible Universe.* Authors: Anita Zanella. Invited talk.

*PIXEL - Picture (of) the Universe*. Authors: Stefania Varano, Sara Ricciardi, Andrea Ligabue, Giannandrea Inchingolo, Rachele Toniolo, Alessandra Zanazzi, Riccardo Leoni, Silvia Casu, Valentina La Parola. Oral contribution.

*Facilitating group discussions about the societal impact of large astronomical infrastructures through a PLAY Decide activity*. Authors: Silvia Casu, Claudia Mignone, Sara Ricciardi, Stefania Varano, Alessandra Zanazzi.

*AstroElves: an experience of outdoor education*. Silvia Casu, Martina Balloi, Mara Lasi, Oriana de Golondrinas, Gian Luigi Deiana, Carlo Dessì. Poster contribution

#### **5.5.4 EAS European Astronomical Society, 28 June- 2 July 2022**

Contributed talk to special session 37b : Astronomy for Development

*A new PlayDecide activity to facilitate group discussions about the societal impact of large astronomical infrastructures*. Authors: Claudia Mignone, Silvia Casu, Sara Ricciardi, Rachele Toniolo, Stefania Varano, Alessandra Zanazzi.

<https://eas2022programme.kuoni-congress.info/presentation/a-new-playdecide-activity-to-facilitate-group-discussions-about-the-societal-impact-of-large-astronomical-infrastructures>

Contributed poster to lunch session LS9a : Outreach and Public Engagement after Covid

*AstroEDU, IAU open-access platform for peer-reviewed Educational Activities*.

Author: Livia Giacomini

<https://eas2022programme.kuoni-congress.info/presentation/astroedu-iau-open-access-platform-for-peer-reviewed-educational-activities>

#### **5.5.5 Europlanet Science Congress 2022, Granada, Spain, 18–23 Sep 2022**

*astroEDU, IAU open-access platform for peer-reviewed Educational Activities*, EPSC2022-1028, <https://doi.org/10.5194/epsc2022-1028> Authors: Giacomini, L., Gomez, E., Mazzolo, G., and Sanderson, G.

On November 16, AstroEDU was presented at the 4th Shaw-IAU Workshop with a 2-hour interactive workshop: “[astroEDU Workshop: Let’s learn with astroEDU](#)”. The

workshop was presented by Livia Giacomini, Giulio Mazzolo, Gwen Sanderson, Edward Gomez and Federica Duras, and was repeated twice during the day. The workshop was attended by about 200 participants, who will be re-contacted in order to propose new educational activities.

#### 5.6 Press release, announcements and news

2022.12.15 IAU announcement of the astrophotography winners

<https://www.iau.org/news/announcements/detail/ann22042/>

2022.12.15 eduinaf news of the astrophotography winners

<https://edu.inaf.it/news/dae-italia/concorso-astrofotografia-iau-dae-2022/>

2022.10.28 Shaw Workshop- published on edu.inaf.it

<https://edu.inaf.it/news/eventi/shaw-iau-workshop/>

2022.04.05 IAU announcement astroEDU Managing Board

<https://www.iau.org/news/announcements/detail/ann22016/>

2022.04.20 eduinaf news of the astrophotography contest

<https://edu.inaf.it/news/premi-e-concorsi/astrofotografia-iau-2022/>

2022.04.20 OAE Announcement of the TTPP contest

<https://astro4edu.org/news/qG965ME/>

Eduinaf news of the TTPP contest

<https://edu.inaf.it/news/per-la-scuola/programma-pilota-formazione-docenti/>

2022.07.08 IAU announcement *The first STEAM–Med Workshop on Astronomy for Education held on the island of Lampedusa*

<https://www.iau.org/news/announcements/detail/ann22030/>

2022.07.04 Astronomia e didattica, nel cuore del Mediterraneo

<https://www.media.inaf.it/2022/07/04/astronomia-e-didattica-nel-cuore-del-mediterraneo/>

2022.07.04 A Lampedusa, il primo workshop STEAM-Med

<https://edu.inaf.it/news/oa-italia/lampedusa-primo-workshop-steam-med/>

2022.04.05 *Edu Inaf Report – Dubai Expo 2020*

<https://edu.inaf.it/in-english/report-in-english/light-up-the-sky-of-the-world-from-the-expo-in-dubai/>

# Attachment 1. Main budget actions list

The OAE Center Italy Funzione Obiettivo 1.05.01.23.16 is maintained at Roma Astronomical Observatory.

8/4/2022

Transfer from Roma to Brera: € 15000

From 1.01.01.01.009 (assegno di ricerca)

To 1.01.01.01.009 (assegno di ricerca)

Project Manager: Stefano Sandrelli

Transfer from Roma to Brera: € 500 euro

from capitolo 1.03.02.02.004.01 (Comunicazione e Divulgazione)

To capitolo 1.03.02.02.004.01 (Comunicazione e Divulgazione)

Project Manager: Stefano Sandrelli

13/9/2022

Transfer from Roma to Brera: € 10000

From capitolo 1.03.02.02.004.01 (Comunicazione e Divulgazione)

To capitolo 1.03.02.02.004.01 (Comunicazione e Divulgazione)

Project Manager: Stefano Sandrelli

Transfer from Roma to Roma: € 39,480

From capitolo 1.03.02.02.004.01 (Comunicazione e Divulgazione)

To capitolo 1.03.02.99.999.01 (Altre spese di servizi per la ricerca scientifica)

Project Manager: Angelo Antonelli

08/07/2022 Purchase

From capitolo 1.03.02.99.999.01 (Altre spese di servizi per la ricerca scientifica)

Service purchase: € 39,480 - RUP Francesco D'Alessio (purchasing manager)

in favor of Viaggi Solidali, in compliance with Contratto ID 122518 - Italia 844\_10\_A -

03/07/2022

08/07/2022 Activities support

From capitolo 1.03.02.02.004.01 (Comunicazione e Divulgazione)

To Max Planck Gesellschaft zur Foerderung der Wissenschaften

EUR 10,000 to be used as funds for primary school projects in the IAU OAE Teaching Teachers Pilot Project 2022 (TTPP). The allocation of the funds were determined by the TTPP selection committee, in which the OAE Center Italy hosted by enough will have at least one representative. Allocated funds were passed on by MPIA to the institutions hosting the selected projects.

EUR 5000 to be used as prize money in the 2022 edition of the IAU OAE Astrophotography contest, which is hosted jointly by IAU OAE (Heidelberg) and the IAU OAE Center Italy. Winning entries were determined by an external jury. The funds will be passed on by MPIA to the creators of the winning entries.



**OAE Center  
Italy**