Badjáneaddji Násti

The International School for Young Astronomers Newsletter, no. 1

Letter from the Editors

Badjáneaddji Násti, the International School for Young Astronomers' newsletter is here to inform the ISYA network of alumni, lecturers, tutors and organizers about what is happening in our community. It is intended to be an electronic only publication twice a year. With 45 schools since 1967, more than 1500 alumni and more than 450 lecturers, tutors and local organizers, it is time to formalize our communications and network.

Badjáneaddji Násti in <u>Sami</u> language means Rising Star. Sami is the group of languages spoken by the indigenous people of Northern Europe (North Finland, Norway, Sweden, and extreme Northwestern Russia). Since the ISYA Program is nowadays cosponsored by the International Astronomical Union (IAU) and the Norwegian Academy of Science and Letters (NASL) through the Office for Young Astronomers (OYA), we have chosen an international minority language spoken in Norway to name our newsletter. The name makes reference to the 1500+ alumni that have been touched at the beginning of their careers by ISYA.

This newsletter is reaching you through a private distribution list hosted at the University of Oslo. The titanic effort Michele Gerbaldi, former ISYA Secretary, did in digitizing and publishing the <u>reports</u> <u>of all schools</u> in the <u>ISYA webpage</u>, coupled with the work of current ISYA directors Itziar Aretxaga and David Mota and the OYA interns to locate as many alumni as possible in the web, have resulted in our current distribution list.

These pages are open for all the ISYA network to communicate news and views on the impact of astronomy development in the target ISYA countries or about your personal progression as alumni. If you wish to submit an item to the newsletter, please do so by sending an email to the official ISYA address: <u>isya at iau.org</u>. For your article to appear in the January or July Newsletter, your contribution should reach us at least one month beforehand. Please make it at most 3000 characters long and include one or two images.

In this number you can find a brief summary of the participation of the ISYA program in the XXXII General Assembly of the IAU in Cape Town, in August 2024, and a summary of the 45th ISYA in Algeria, in September 2024. We also include the ISYA plans approved for 2025 and the renewed Steering Committee of OYA, that oversees the ISYA Program. You can also find a review of the book "Inspiring Stories from Women in Astronomy in Africa" published by the African Network of Women in Astronomy of the African Astronomical Society (AfAS) in 2024 that highlights the progression of 10 ISYA alumnae. In this number we also include an interview to Kinsgley Opkala and Nassim Seghouani, alumni from the 24th ISYA in 1999. Kingsley pushed us to start this newsletter in the first place and Nassim has been the local director of the recent 45th ISYA in 2024.

We would love to hear from you too!

2024 was indeed time for Africa! It still is! Itziar Aretxaga and David F. Mota, for the ISYA Program

Schools 2024

45 ISYA, Zeralda-Algiers, 15 September-3 October 2024

The 45th ISYA was organized by the *Centre de Recherche en Astronomie, Astrophysique et Géophysique* (CRAAG) and the General Directorate of Scientific Research and Technological Development (DGRSDT) of Algeria at Hotel Les Sables d'Or Zeralda – Algiers, Algeria.

The school moto, "Building a new vision for Astronomy & Astrophysics in Algeria" was intended to emphasize the training in modern Astrophysics in the host country, which has a small IAU membership.

We invited applications from early graduate students (MSc/PhD) in Physics, Astronomy, or Astrophysics from Central to North African, Middle Eastern, and Mediterranean East European countries. We received 207 applications for 30 seats in the school. The final list was composed of 17 Algerian students, 1 student from Albania, 1 from Burkina Faso, 2 from Egypt, 1 from Ethiopia, 1 from Ghana, 1 from Hungary (originally from Lebanon), 1 from Nigeria (originally from Zambia), 1 from Iran, 1 from Rwanda, 2 from Turkey, 1 from Uganda.

We had courses on Solar Physics (Tiago Pereira, Univ. Oslo, Norway), Small Bodies in the Solar System (Naceur Bouziani, CRAAG, Algeria), Stellar Astrophysics (Alessandro Bressan, SISSA, Italy), Interstellar Medium (Frédéric Galliano, Saclay, France), Galaxies (Itziar Aretxaga, INAOE, Mexico), Cosmology (David Mota, Univ. Oslo, Norway), High Energy Astrophysics (Marat Gilfanov, MPA, Germany), Radio-Astronomy (James Chibueze, UNISA/NWU, South Africa), Virtual Observatory and Databases (Mirjana Povic, SSGI, Ethiopia/IAA, Spain), Machine Learning (Helena Domínguez Sánchez, IFCA, Spain) and Observational Optical Astronomy (Roger Hajjar, Vanier College, Canada; Amina Boulkaboul, CRAAG, Algeria; Yassine Damerdji, CRAAG, Algeria; Nassim Seghouani, CRAAG, Algeria).

We highlight a few comments by the 2024 alumni from their feedback reports:

"ISYA has been an experience like no other. It wasn't just about learning astronomy, it was about forming lifelong bonds, discovering new perspectives, and pushing our limits together. It gave us a space to grow not just academically but as individuals. The memories, the lessons, and the friendships we've built will stay with us forever. ISYA wasn't just a school, it was a transformative journey that will continue to inspire us for years to come."

"In general ISYA 45 was very wonderful. I found it to be a transformative experience. The program was thoughtfully designed, with lectures and hands-on workshops that significantly broadened my understanding of astronomy and astrophysics. The chance to interact with renowned experts in the field, as well as collaborate with fellow students from diverse backgrounds, was truly inspiring. ISYA 45 provided a supportive environment that encouraged learning, curiosity, and the exchange of ideas, making it a remarkable journey of growth and discovery for me as a young astronomer. Keep it up !!!!"

The public report can be found in the IAU/ISYA report repository page.

A reel made by ISYA45 alumna Cheima Amine-khodja, OAO National Outreach Coordinator in Algeria, can be seen <u>here.</u>



ISYA 45 participants in "crazy happy" photo mode. Right to left, top to bottom: Mohamed Dahmani Della (Algeria), Younes Zakaria Tair (Algeria), Osama Ramla (Egypt), Katia Becheker (Algeria), lecturer Frèdèric Galliano (France), lecturer Roger Hajjar (Canada), lecturer James Chibueze (South Africa), Sam Samuneti (Nigeria), lecturer Tiago Pereira (Norway), Souleymane Ouedraogo (Burkina Faso), Ahmet Cem Kutluay (Turkey), Ahmed Gueboudji (Algeria), lecturer Marat Gilfanov (Germany), Sena Aleyna Şentürk (Turkey), Amel Benali (Algeria), lecturer Yassine Damerdji (Algeria), visiting student Meriam Mansouri (Algeria), visiting student Omar Farouk Zouak (Algeria), visiting student Farida Boubeker (Algeria), Ivan Turyahabwe (Uganda), Zakaria Hezam (Algeria), Amel Djardini (Algeria), lecturer Mirjana Povic (Ethiopia/Spain), LOC Dalel Aberkane (Algeria), Delphine Nishmwe (Rwanda), Stephen Sottie (Ghana), CRAAG staff Dahmane (Algeria), Mehdi Kaci (Algeria), Alaa Rezzaz (Algeria), Manel Harizi (Algeria), Ayoub Sarri (Algeria), Marsida Laze (Albania), Fateme Soltanzade Fariman (Iran), Noudjoud Balahouane (Algeria), Echeima Amine-khodja (Algeria), Mehbuba Ahmed Mohammed (Ethiopia), lecturer Amina Boulkaboul (Algeria), visitor Naouel Boulkaboul (Algeria), lecturer Helena Domínguez Sánchez (Spain), lecturer Naceur Bouziani (Algeria), Haithem Taha (Algeria), lecturer/co-director Itziar Aretxaga (Mexico), lecturer and local director Nassim Seghouani (Algeria), Rania Benarbia (Algeria), Jasmine Khalil (Egypt), Yasmin Nehme (Hungary), Rania Guendouz (Algeria), Romaissa Maalin (Algeria), lecturer/co-director David Mota (Norway).



Photo gallery, right to left, top to bottom: lecture at Algiers Observatory Library, lecture at the hotel conference room, Group Projects, Practice on Radioastronomy, Group Project presentations, tour on weekend to Roman/Numidian ruins.

Schools 2025 onwards

The next ISYA, 46th, will be hosted at the <u>Yachay Tech University</u>, Ecuador, 6-26 July 2025. The school will receive 30 students from Latin America and the Caribbean region, mostly at the MSc to starting PhD level. The call for student applications will be issued in the ISYA web page and it will be advertised through the IAU distribution lists and social media.

ISYA 47th will be hosted at the National Taiwan University / National Taiwan Normal University, in November-December 2025.

Stay tuned for the announcements and encourage your peers and students to apply!

OYA Activities at the IAU General Assembly 2024, Cape Town, South Africa

The Office for Young Astronomers (OYA) was present at the XXXII IAU General Assembly in Cape Town. We had an intense program. All talks at the GA were recorded and they can be accessed freely in the <u>GA2024 YouTube channel</u>. The ones related to ISYA are linked in this document.

- <u>OYA Meeting</u>, 8th August. It was composed of 3x1.5hr sessions. The first two sessions were devoted to talks and discussion about the ISYA program, and links to other programs. We started with a historical overview of the program and followed it with contributed talks. The last session was devoted to a compressed Career Development workshop offered to all GA attending students.

- <u>Offices Joint Session</u>, 9th August, OYA participation in the round table devoted to the impact of the Offices on Society.

- <u>Offices Plenary Session</u>, 12th August, there was a plenary talk by Brian Schmidt, incoming IAU President Elect and 2011 Nobel prize winner in Physics, followed by a round table on how to build an impactful career.

OYA was also present at the IAU Booth, open 6-15 August, 8:30am-6pm. In the OYA television screen we showed a roll of photographs, dating from 1977 to 2023. Many ISYA alumni and lecturers visited the booth. We had the physical presence of alumni from 2023-South Africa, 2019-China, 2018-Egypt, 2017-Ethiopia, 2016-Iran, 2015-Honduras, 2012-South Africa, 2010-Armenia, 1999-Romania, 1986-China, 1981-Egypt, 1979-Spain and 1978-Nigeria!



ISYA family photo at the General Assembly 2024 in Cape Town: alumni, lectures, organizers, with the IAU Executive Committee (IAU EC) and OYA Steering Committee (SC) members. We all make the ISYA program. Left to right, bottom to top: Sara Said (ISYA-2018 Egypt LOC), Mohamed Farooq (ISYA-2018 Egypt LOC), David Mota (ISYA DD), Lina Canas (IAU Paris), Thobekile Sangra Ngwane (ISYA-2023 South Africa), XXX, Samuel Nyangi (ISYA-2023 South Africa), Mirjana Povic (ISYA lecturer), Hiiko Katjaita (ISYA-2023 South Africa), XXX, XXX, Michele Gerbaldi (OYA SC/Former ISYA Secretary), Piero Benvenutti (ISYA lecturer/IAU Officer), Debrah Elemegreen (IAU Officer), Diana Worrall (IAU Officer/OYA SC), Sambatriniaina Hagiriche Aycha Rajohnson (ISYA-2017 Ethiopia), Itziar Aretxaga (ISYA D), XXX, James Chibueze (ISYA lecturer/IAU EC), Hyesung Kang (IAU EC), Solomon Tessema (ISYA-2018 Egypt Local Director/IAU EC), Laura Ferrarese (IAU Officer/OYA SC), Daniela Lazzaro (IAU EC) Priscilla Muheki (ISYA 2017, Ethiopia), Gloria Raharimbolamena (ISYA-2018 Egypt), Rosaria D'Antonio (IAU Paris), Ann Njeri (ISYA-2017 Ethiopia), Ewine van Dishoeck (ISYA lecturer/IAU EC Advisor), Jane Letsoalo (ISYA-2023 South Africa), Mioura Rakototafika (ISYA-2023 South Africa), Mavis Seidu (ISYA-2023 South Africa), Lisa Seconna (ISYA-2023 South Africa), Johan Nel (ISYA-2023 South Africa), Willy Bentz (IAU Officer), Nhlengani Baloyi (ISYA-2023 South Africa), Tamador Khalil Mansoor Aldowma (ISYA-2017 Ethiopia), Junichi Watanabe (IAU EC), Petri Vaisanen (ISYA lecturer/ ISYA-2012 Local Director), Dejene Zewdie Woldeyes (ISYA-2017, Ethiopia), Per Lilje (OYA SC Chair), Benedicta Woode (ISYA-2017 Ethiopia), Ilya G. Usoskin (IAU EC), Rebecca Rossi (IAU Paris), XXX.

[Note: if you can identify those marked as XXX, please send us a note to update our records]

Book Review: "Inspiring Stories from Women in Astronomy in Africa"

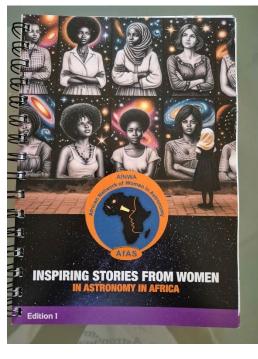
The African Network of Women in Astronomy (<u>AfNWA</u>) has published in 2024 a compilation of profiles of women astronomers as a showcase of career paths for future generations, called <u>"Inspiring Stories from Women in Astronomy in Africa"</u>, edited by Priscilla Muheki, Mirjana Povic, Somaya Saad and Salma Sylla Mbaye.

Among the profiles we can find 10 of the following ISYA alumnae: Somaya Saad (ISYA-1994 Egypt), originally from Egypt, PhD, professor at NIARG, Egypt; Priscilla Muheki (ISYA-2017, Ethiopia) from Uganda, PhD, professor at Mbarara Univ., Uganda; Sambatriniaina Hagiriche Aycha Rajohnson (ISYA-2017 Ethiopia), from Madagascar, PhD, currently a postdoc in South Africa; Ann Njeri (ISYA-2017 Ethiopia), from Kenya, PhD, currently a postdoc at Newcastle Univ, UK; Adaeze Lorreta Ibik (ISYA-2017 Ethiopia), originally from Nigeria, currently pursuing a PhD at Univ. Toronto, Canada; Amira Tawfeef (ISYA-2018 Egypt), from Egypt, PhD, currently a researcher at NIARG, Egypt; Gloria Raharimbolamena (ISYA-2018 Egypt) from Madagascar, currently pursuing a PhD at Univ. Bristol, UK; Ola Ali M. M. Saad (ISYA-2018 Egypt), from Egypt, currently pursuing a MSc at NIARG, Egypt; Thobekile Sangra Ngwane (ISYA-2023 South Africa) from Zimbabwe, currently pursuing a MSc at Univ. Cape Town/SAAO, South Africa; Mehbuba Ahmed Mohammed (ISYA-2024 Algeria), from Ethiopia, who currently received a MSc from SSGI, Ethiopia. Together with other 36 profiles, this book offers an array of inner motivations, vision and tenacity to pursue a career in Astronomy by African women.

The personal experiences of ISYA alumnae speak of the difficulties any student needs to surpass, including allowing oneself to picture her career in a profession foreign to the surroundings in which she grew and realizing astronomy is an option as a profession.

In the profiles, several of them highlight the importance of ISYA at the start of their careers. We include as a sample a quote by Gloria Raharimbolamena (ISYA-2018 Egypt): "My first summer school has been the most exciting part of my odyssey. In 2018, I was given the opportunity to attend the International School for Young Astronomers in Egypt; I could never have imagined that I would be selected among several international students on my first ever application. This school has opened a path for my future career."

The book can be found here: www.afnwa.org



Alumni in depth

Kingsley Okpala (University of Nigeria at Nsukka, Nigeria, Professor) Alumnus 24th ISYA 1999, Bucharest, Romania. PhD. Country of origin at ISYA: Nigeria Webpage: https://www.iau.org/administration/membership/individual/11104/



Left: Kingsley Okpala at the 24th ISYA in Bucharest, Romania with other students from Vietnam and Romania. Right: Kingsley today.

1.- What is your most vivid memory of the ISYA you attended?

I attended the 1999 ISYA held at Bucharest, Romania. The ISYA coincided with the total solar eclipse that occurred on August 11, 1999. That eclipse was the high point of my attendance at the school.

2.- What contacts and alliances did you form there?

The ISYA of 1999 provided me with the opportunity to meet with teachers like, Michele Gerbaldi, Magda Stavinchi, Ed Guinan, A. Ferrari and D. Wentzel (late) among others. We also attended seminars outside the school (where I met Jay Passachof). Some of these teachers became mentors during my early Astronomy outreach activities.

3.- How did ISYA help you in your development in that early stage of your career?

The education received during the ISYA 1999 was very instrumental to my progression in academics especially the hands-on exposures during the eclipse. Earlier in my carrier I worked as a science officer in the Nigerian space agency. During this time, we used the experience gathered from the school to write the proposal for our nation's programme for the total solar eclipse that occurred in March 2006. I was able to contact the late Jay Pasachoff (whom I met during the ISYA 1999) who assisted us with solar filters that were used for producing most solar eclipse glasses used in Nigeria during that eclipse.

Nassim Seghouani (Center of Research of Astronomy Astrophysics & Geophysics, Algeria, Faculty) Alumnus 24th ISYA 1999, Bucharest, Romania. PhD. Lecturer 40th ISYA Egypt 2018. Local Director 45th ISYA 2024 Algeria.

Country of origin at ISYA: Algeria Webpage: https://www.iau.org/administration/membership/individual/18644/



Left: 1999 ISYA in Bucharest, Romania. Right: Nassim Seghouani today.

1.- What is your most vivid memory of the ISYA you attended as a student?

Lots of memories indeed. Maybe the most vivid one, is that great mix of students from different backgrounds and cultures, learning and sharing knowledge in a very friendly atmosphere, very different from the academic studies we were used to. And to top it off, during the school, we participated in the observation of one of the most beautiful solar eclipses of the century in Bucharest 1999.

2.- What contacts and alliances did you form there?

I met a lot of people during the school, and I discovered Helioseismology from students of Uzbekistan. After that I began working on Helioseismology, and developed a team in Algeria and kept good contact with the students from Uzbekistan.

3.- How did ISYA help you in your development in that early stage of your career?

When I attended the ISYA school in 1999, I was 30 years old, I was a PhD in Signal Processing and I was just beginning to work in Algiers Observatory as a researcher in Astronomy. Even if I was good in the Signal Processing field, I was a newbie in Astronomy with almost zero knowledge in this field. My participation in the ISYA was an immersion into Astronomy, giving me a first taste and basic knowledge of many astronomical domains that I didn't know before (photometry, spectrometry, solar physics, galaxies, cosmology...), in addition to many exchanges with the students and their work. I was particularly interested in Helioseismology and back in Algeria I developed a project and a team in that domain. The duration of the school was also very good: three weeks were long enough to let the students learn and exchange more (in English!). I liked very much this school format, and I was very happy to participate, a few years later, as a teacher in similar schools and it was a great honor for me to be among the teachers in the ISYA 2018 held in Egypt. Today I am contributing to the development of Astronomy in my country, by research,

teaching, supervising students and constructing a new observatory and I can testify that the ISYA has given me very good tools and knowledge to have a good career in Astronomy in Algeria.

4.- What are the impacts you can see in the 45th ISYA you organized?

Organizing the 45th edition of ISYA in Algeria was a wonderful experience and a great honor! It was not very easy, but everyone here made great efforts for the success of the school. For many students (local and foreign), it was like a discovery of a new world of science, scientific exchanges, new and modern teaching methods. They also had the opportunity to have a very good overview of many astronomical fields. With the hands on data in almost all courses, they understand what astronomy is: observations, data and models. We could feel that their gaze has changed! We could feel their passion and enthusiasm. I am sure that their attitude towards science in general will never be the same again. They were also able to establish very good relationships between themselves and with the professors, which is very promising for the future. The organizers also learned a lot from the school, we now plan to organize such events more often, even if it will be on a smaller scale. We are trying to build a new vision and develop astronomy in Algeria, and I can testify that ISYA 45 was a first brick in this edifice. It helped build new capacities, gave new horizons to students and organizers, set new standards in the way of teaching astronomy, helped create networks and showed the way! I am eager to see this generation of students succeed in their careers, contribute to the development of astronomy in their country, and develop good networks.

We say "well done, you!"

Dr. Priscilla Muheki from Mbarara University, Uganda, ISYA alumna 2017 in Ethiopia, is one of the 15 Organization for Women in Science for the Developing World (<u>OWSD</u>) Early Career Fellowship awardees, supporting them to establish international-level research centers at institutions across the Global South.

Dr. Sambatriniania Hagiriche Aycha Rajohnson, originally from Madagascar and recently graduated from University of Cape Town, South Africa, ISYA alumna 2017 in Ethiopia, is one of the 30 L'Oréal-UNESCO Young Talents Sub-Saharan Africa Awards recipients.

News from OYA

After IAU General Assemblies, committees get renewed and we say good bye to servicing members and welcome new ones. The Steering Committee of the Office for Young Astronomers (OYA) is now integrated by

James Chibueze (UNISA/NWU, South Africa), Chair 2024-2027 Laura Ferrarese (Univ. Victoria, Canada), Assistant General Secretary 2024-2027 (ex-officio) Per Lilje (Univ. Oslo, Norway) Jane X. Luu (Massachusetts Institute of Technology, USA / Univ. Oslo, Norway) We thank previous members of the Steering Committee Diana Worrall (Univ. Bristol, UK / IAU General Secretary 2024-2027), Michele Gerbaldi (IAP, France), who has served since 2015 as IAU member and chair of the Steering Committee (2018-2021) and Edward Guinan (Villanova Univ. USA), who also served in the committee since 2015. We also thank Piero Benvenutti, IAU Intern General Secretary (2023-2024) who worked with the ISYA program very closely and gave a seminar to the students in ISYA-2023 South Africa!

Important information

ISYA email: isya at iau.org (erase spaces) ISYA web page: <u>https://www.iau.org/training/school_for_young_astronomers/</u>

Want to organize an ISYA in your country? Please look at the requirements to propose for an ISYA in the ISYA webpage. We do not issue calls for proposals. We work with local organizing committees to ensure an orderly proposal process to the Steering Committee of the <u>Office for</u> <u>Young Astronomers</u>, who approves them.

Do you have photographs of ISYAs 1967-2015? Please send them to our email address.

Have you reached a milestone in your career? Let us know!

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