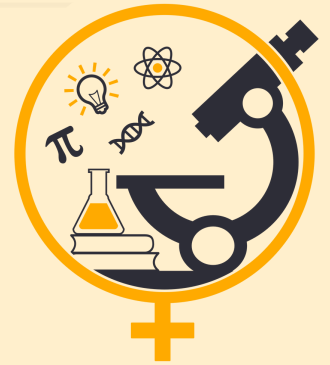
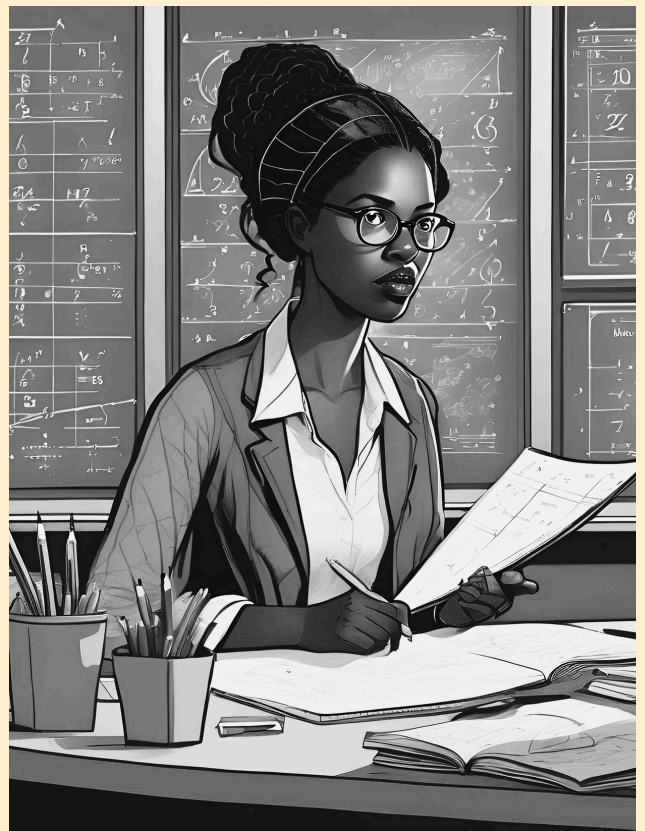


# Ikala STEM DIARY

ISSUE 04  
DECEMBER 2024



EMPOWERING THE NEXT GENERATION OF  
MALAGASY WOMEN IN STEM



# Editorial

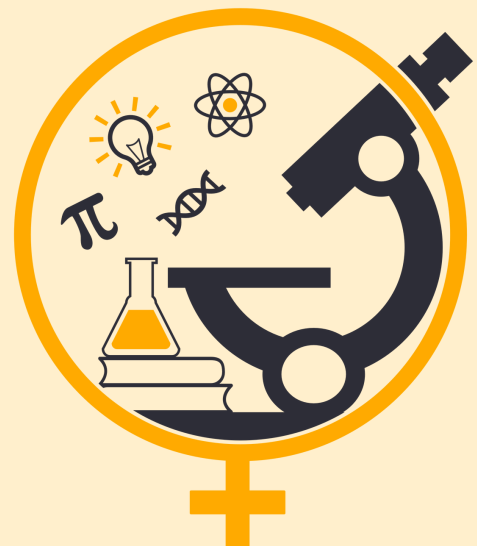


Dear readers,

We are pleased to welcome you to the fourth edition of the Ikala STEM Diary. After a quiet period, we are thrilled to reconnect with you through this newsletter. Life has brought significant changes for many of us. We juggle multiple responsibilities, including work, studies, internships, health, family, and motherhood. We also face significant life transitions like moving, relocations, adapting to new places, job changes, finding or losing housing, securing research funding, and building new teams. Despite our early efforts, the scale of these challenges is immense. However, as we move forward, we look forward to sharing exciting updates and insights with you since the latest newsletter. This edition is marked by the publication of an open letter for the Advocacy for Girls' Education and STEM Skills Development in Madagascar. We will introduce you to the new board members of Ikala STEM as well as the current statistics of the members, and you will learn about the activities and achievements of the teams from all the chapters. We will also share here the inspiring stories of two representative members. One heading will be dedicated to Ikala STEM members who recently made great achievements, such as thesis defenses, scientific publications, grants and awards.

**Enjoy reading!**

*The Editorial Team*



# **Ikala STEM DIARY**

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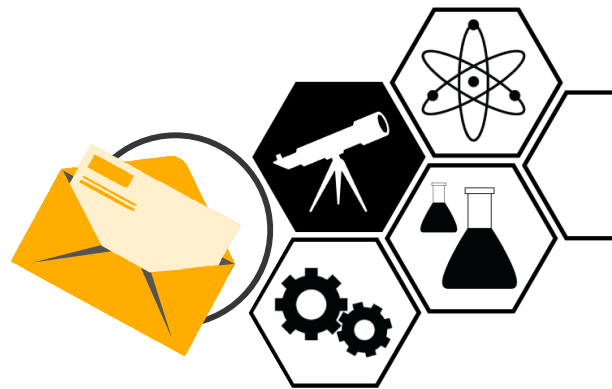
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# Open Letter

## ADVOCACY FOR GIRLS' EDUCATION AND STEM SKILLS DEVELOPMENT IN MADAGASCAR



According to UNICEF, girls represent over half of Madagascar's population under the age of 20, which is estimated at over 18 million [1]. They account for nearly 22% of the country's total female population, making them a significant potential resource for the workforce. However, by adulthood, women are significantly underrepresented in the technology sectors compared to men. This gender disparity in the professional world is rooted in a widening gap that begins in adolescence, particularly in education, and more specifically in access to scientific fields. Girls are disadvantaged by stereotypes, lack of confidence in Science, Technology, Engineering and Mathematics (STEM), many social norms and deprivation due to risks of violence on the journey to school or economic constraints. According to 2018 statistics, nearly 71% of girls drop out of school due to early marriage, and only 15% complete upper secondary school, compared to 16% of boys [1]. As a result, the country continues to struggle with low overall education levels, which in turn hampers its economic and social development.

However, girls' education is fundamental. Firstly, it is a right and a matter of social justice. Secondly, it is a powerful lever for economic and societal progress, benefiting not just individual communities but the entire nation. Studies show that providing quality education to girls yields lasting benefits, not only for the girls themselves but also for their families (such as making more informed choices about healthier and more varied diets), their communities, and society at large [2]. Thirdly, in a world where the scientific professions are key drivers of a country's economic growth, promoting access to STEM training for young Malagasy girls will give them the knowledge and tools they need to understand the challenges of technological innovation and provide solutions to local and global challenges (financial management, job creation, public health, food safety and climate change). In this way, they will be able to play an active role in the sustainable development of Madagascar by becoming a considerable number of allies alongside the Malagasy male population.

We, the signatories of this open letter, are convinced that young Malagasy girls and women represent a vast untapped potential in Madagascar. Their access to quality education and the development of their STEM skills are essential to accelerate the development of our country. In the face of significant socio-economic challenges, it is both urgent and crucial to invest in the training of skilled women technicians, creative engineers, doctors (both medical and academic) and professors. These women are vital to filling the shortage of workers in Madagascar's short-staffed key sectors. They are also an additional source of ideas for local innovation adapted to our realities. Their expertise will give us even greater scope for development. In the long term, they also play a key role in passing on knowledge and shaping new generations that are better prepared to catch up in the modern world. All these women will be agents of change, contributing to the design of solutions that truly meet the population's needs.

Accordingly, given the persistent barriers that prevent girls from accessing quality science education and training, it is crucial to take action by putting in place targeted programmes at the national level to encourage and support them in these fields. This includes the creation of scholarships, internships from middle school upwards and mentoring initiatives that will enable them to project themselves into STEM careers.

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[1] UNICEF. [UNICEF launches a survey to gather young people's views on the situation of girls in Madagascar](#) [accessed on 20/12/2024]

[2] UNICEF. [Gender inequalities in Madagascar](#) [accessed on 10/12/2024]



Medium-scale associations and programmes are already working in this direction. Still, we emphasize the need for a more widespread initiative across Madagascar, one that has the potential to make a more immediate and significant impact. We therefore call on all stakeholders—government, NGOs, businesses, international donors and individual citizens— to make an active commitment to girls' education and the development of STEM skills in Madagascar. Together, we can transform our society, create opportunities and build a brighter future.

## We urgently call on the competent authorities to :

- Guarantee **access to safe, quality education** for all girls, regardless of their socio-economic circumstances, particularly in STEM subjects.
- Deploy nationwide **training, internship and mentoring programmes from middle school** to encourage and support young girls to pursue STEM careers.
- **Fund and promote innovative projects run by women**, helping them to develop low-cost solutions to improve everyday life in Madagascar.
- **Promote a culture that values girls' education and the role of women in science and technology**, involving the community and the media.

## Let's take action together !

### Signatories :

- Ikala STEM
- Malagasy Women Empowerment
- Fianaralab
- Diasporeines Africa
- Juniors pour Madagascar



[1] UNICEF. [UNICEF launches a survey to gather young people's views on the situation of girls in Madagascar](#) [accessed on 20/12/2024]

[2] UNICEF. [Gender inequalities in Madagascar](#) [accessed on 10/12/2024]

# Ino maresaka Chapters?



## IKALA STEM BOARD MEMBERS

New board members have been elected on September 2023. Fourteen STEM warriors working together to empower the next generation of Malagasy women in STEM.



**Tsiriandrimanana  
Rakotondraibe**

President



**Ny Avo Sitraka  
Rakotomalala**

Vice-President



**Vololoniaina Murielle  
Zafimahita**

Secretary



**Marie Anna  
Baovola**

Membership Officer



**Angelina  
Ihanitriniala**

Finance Officer



**Fitahiana  
Andriamahafaly**

Communication Officer



**Hanitra  
Rakotonirina**

Advisor & Co-founder



**Lyra  
Randzavola**

Coordinator Europe



**Sambatra Rajohnson**

Coordinator  
Sub-Saharan Africa



**Dora  
Rajohnson**

Coordinator - Asia



**Zara  
Randriamanakoto**

Advisor & Co-founder



**Hoby  
Rasoanaivo**

Coordinator - Madagascar



**Tinah  
Martin**

Coordinator - America



**Adelaide  
Miarinjara**

Coordinator - America

# BIOGRAPHIES



**Tsiriandrimanana  
Rakotondraibe**  
President

Tsiriandrimanana holds a PhD in seismology from the University of Johannesburg (South Africa). She previously studied physics during her first three years at the University of Antananarivo (Madagascar). Then, she switched to the geophysics program to prepare for her Master's degree. After that, she chose to specialize in seismology at the Institute and Observatory of Geophysics Ambohidempona (IOGA), University of Antananarivo. She completed various training programs and worked as a geophysical researcher and seismic data analyst. After she obtained her PhD, she continued a postdoctoral position in the

Arise program at the IOGA. Currently, her research focuses on developing a database of faults and seismic velocity models to further study the monitoring of seismic events.

As the president of IkalaSTEM, she is passionate about helping students develop their projects in this field. She aims to share the knowledge she has gained during her studies and research, and she also enjoys interacting with young people, even outside the scientific domain. Outside of her academic activities, she is passionate about reading, singing, dancing, and sports. She enjoys scripting, too.



**Ny Avo Sitraka  
Rakotomalala**  
Vice-President

Ny Avo Sitraka Rakotomalala is a mining engineer in transition to the technology sector. She inspires Malagasy women and girls to pursue their passions and break barriers in STEM fields through resilience, knowledge sharing, and committed leadership.



*Teamwork makes  
the dream work !*



**Vololoniaina Murielle  
Zafimahita**  
Secretary

## ***“Set a goal, dare to challenge yourself”***

Aina works in the field of Informatics and has studied Systems and Network Administration at the “Ecole Nationale d'Informatique” (ENI) in her hometown Fianarantsoa (Madagascar). For Aina, it all started in junior high school when she discovered mathematics and physics. She was won over by these subjects, and this prompted her to choose the scientific path at the Lycée Saint François Xavier Fianarantsoa. She obtained her high school diploma (“Bacc série C”) with honors in 2011. With an inquisitive mind and a love of discovering the

behind-the-scenes of everyday tools, especially in the field of Information Technology (IT) and technology, she chose to continue her studies at the ENI. She graduated with a professional master's degree in systems and network administration in 2017. She worked as a Systems Administrator in an Internet Service Provider (ISP) in Antananarivo, then evolved and found new passions including the field of DevOps. She is currently working as a DevOps engineer and doesn't intend to stop there. She is always looking to evolve in her career, and for her, study never ends, even if you're already in the world of work.



**Marie Anna  
Baovola**  
Membership Officer

Baovola Marie Anna holds a PhD in Telecommunications and Computer Engineering, and is currently in charge of the Ikala STEM Membership Committee. Passionate about science and innovation, she is actively committed to promoting the place of Malagasy women and girls in the STEM (Science, Technology, Engineering, and Mathematics) fields. Through her technical expertise and dedication, she is helping to open up opportunities and inspire a new generation of female scientific talent in Madagascar.



**Angelina  
Ihanitriniala**  
Finance Officer

Angelina is a research assistant at the "Centre National d'Application des Recherches Pharmaceutiques (CNARP)", department of "Ethnobotanique et Botanique." She is also undertaking a PhD in Biodiversity and Environment at the University of Toliara. Single Mom, Angelina's motto is *"Woman in Science is a model who keeps going and succeeds in life"*.



**Fitahiana  
Andriamahafaly**  
Communication Officer

Fitahiana Andriamahafaly is a third-year PhD candidate in vehicle dynamics and urban planning at the University of Gustave Eiffel, Salon-de-Provence (France). She is a civil engineer and holds a Master's degree in Sustainable Mobility. Through her involvement in associations, she works to support younger generations, particularly women, in their academic and professional development, while promoting science as an open and accessible field.



**Hoby  
Rasoanaivo**  
Coordinator - Madagascar

Hoby Rasoanaivo, an Ikala STEM member since 2019, is a veterinarian and research coordinator for the NGO Lemur Love, committed to lemur conservation in southern Madagascar. Convinced that careers are not gendered, she firmly believes that everyone can become what they aspire to be and that Malagasy girls and women have undeniable potential to excel in any field, including science, technology, engineering, and mathematics (STEM).



**Sambatra Rajohnson**  
Coordinator  
Sub-Saharan Africa

Sambatriniaina Rajohnson, a radio astronomer, recently earned her PhD in Astronomy from the University of Cape Town in South Africa. Joining Ikala STEM as a simple member in 2017, she found her passion aligned with the association's mission to empower Malagasy women in STEM and now serves as the Sub-Saharan Africa Chapter's local coordinator since mid-2023.



**Dora  
Rajohnson**  
Coordinator - Asia

Dora Rajohnson holds a PhD in Tropical Medicine and is currently working in the field of bioinformatics. She was awarded a doctoral fellowship by the Organization for Women in Science for the Developing World (OWSD, a UNESCO program) in 2017 to carry out her research work in Tropical Medicine in Bangkok, Thailand. Thanks to a TWAS-BIOTEC postdoctoral fellowship, she is continuing her research activities, which have been extended to bioinformatics. Aside from science, Dora is passionate about jazz music and loves dancing the Lindy Hop.



**Zara  
Randriamanakoto**  
Advisor & Co-founder

Zara Randriamanakoto is a multi-wavelength astronomer at the South African Astronomical Observatory. She is a strong advocate for women in STEM with a firm belief that science is for all. Astronomy is not only her field of research, it has become a powerful tool she uses to inspire girls and women to consider careers in STEM. *"When challenges come your way, pause and reflect but do not quit."*



**Hanitra  
Rakotonirina**  
Advisor & Co-founder

Hanitra Rakotonirina holds a PhD in biology from the University of Göttingen in Germany. Her research focused on the behavioural biology of lemurs. She is country coordinator of a biodiversity conservation project in Madagascar. She enjoys working with children and designs various environmental education materials for Malagasy children.

*"Lead with confidence, keep moving forward, rest when needed—it's all part of staying strong for the journey ahead."*





**Lyra**

**Randzavola**

Coordinator Europe

Lyra is a cell biologist working at the Imperial College London. Her research area focuses on understanding the mechanisms of immune diseases. She did her bachelor degree in Natural Sciences, followed by a master in Pharmacology at the Faculty of Sciences at the University of Antananarivo. She moved to France to undertake a Master Degree in Molecular and Cellular Biology and received a PhD degree in the same speciality. Lyra officially joined Ikala STEM in 2019 and is the coordinator of Chapter EUROPE since April 2022. Lyra is the lucky mother of a 9 year's old boy and 3 year's old girl who keeps her extremely busy whenever she is not doing experiments or talking science.



**Tinah  
Martin**

Coordinator - America

Tinah Martin is a data manager at Lamont-Doherty Earth Observatory of Columbia University, focused on advancing ocean mapping and data management in the Indian Ocean and Africa.

Her commitment to Ikala STEM started in 2017 till present as she is the co-coordinator of the Chapter America.



**Adelaide  
Miarinjara**

Coordinator - America

Dr. Adelaide Miarinjara is a research associate at Emory University, Atlanta, USA. Her current research is focused on the ecology of bubonic plague in Madagascar.

She joined the association in 2017 and became co-coordinator of the Chapter America in 2023.

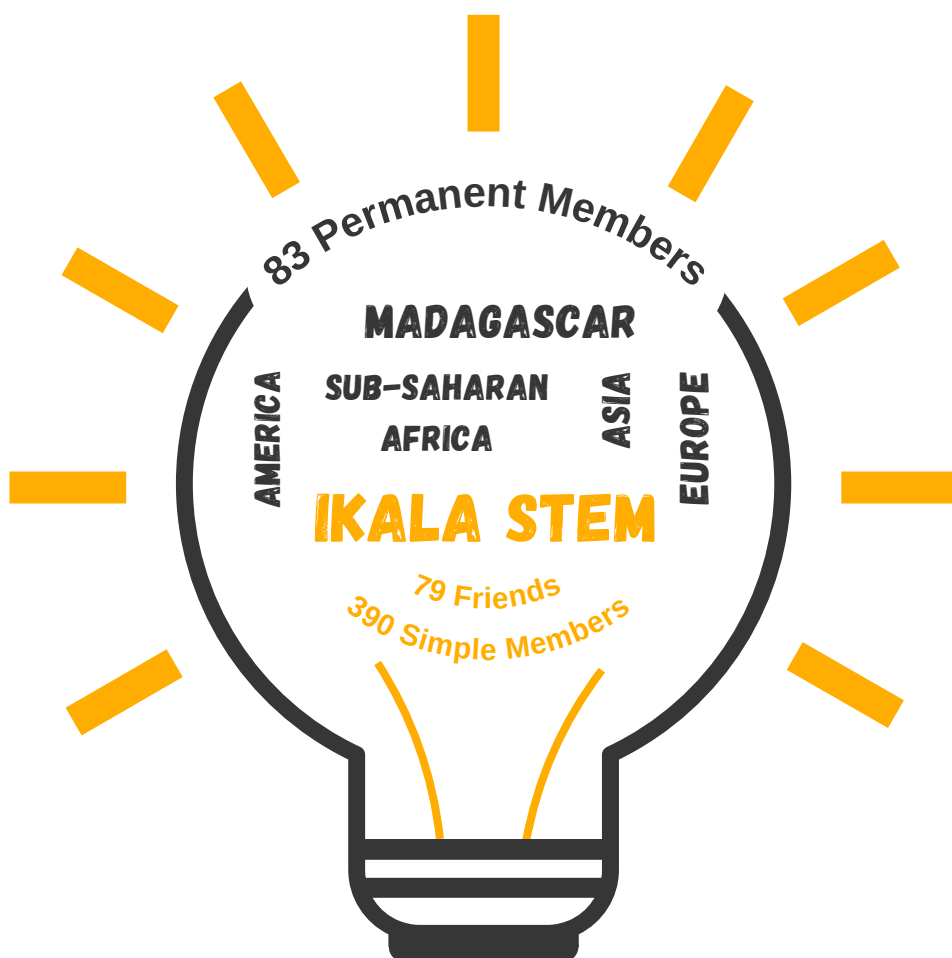
## STATISTICS

As of now, Ikala STEM has a total of 552 members spread across its five chapters in America, Madagascar, Sub-Saharan Africa, Asia, and Europe.

Out of this group,

- 83 are **Permanent members** who play a key role in shaping the organization,
- 390 are **Simple members** actively contributing in various ways, and
- 79 are **Friends of Ikala STEM**, supporting its mission in meaningful ways.

Together, this diverse community is driving Ikala STEM's vision forward, building a strong global network for advancing STEM.



Ikala STEM Statistics 2024

# CHAPTER MADAGASCAR



## Book collection Fianarantsoa

In May 2022, the members of Ikala STEM in Fianarantsoa, in collaboration with the Youth Motivational Learning Club (YMLC) and the “Association des Femmes Éducatrices de Madagascar” (AFEM), launched an educational initiative in Fianarantsoa under the theme “Reading is living in the light”. This program aimed to set up resource and documentation centers in outlying areas, to enhance the knowledge of middle and high school students, and to encourage young girls, in particular, to take an interest in STEM fields (science, technology, engineering, and mathematics). The initiative also aimed to introduce students to the professions of writer and illustrator, while instilling in them a passion for reading. The event collected over 827 books to enrich these educational centers, raised awareness in two schools, and organized a dedicated reading session. Thanks to this interdisciplinary collaboration, the organizers helped widen access to educational resources in rural areas and inspire young people to consider careers in science.



## IDWGS Talk Series

To mark the International Day of Women and Girls in Science (IDWGS), a series of talks entitled “Talk Series” was held on February 11, 2023 at the Cercle Germano-Malagasy (CGM) in Analakely. Under the theme “Did I regret choosing a scientific path?”, this event was organized and led by Hoby, Domohina, Ifaliana, Olifara, Nadia, Koloina, and Lisiane. Its main objective was to highlight the inspiring careers of two Malagasy scientists: Domohina Randriamantena, in the fields of Veterinary Medicine, Agronomy and Medical Biochemistry, and Ifaliana Andriamanjara, specialized in Geography. Aimed at encouraging young women to choose a career in sciences, the event brought together around twenty participants. They were able to benefit from constructive testimonials and concrete advice for their career paths as women scientists. The meeting also created a space for the exchange of experiences and support between the participants, reinforcing their determination to pursue and evolve in the scientific field.

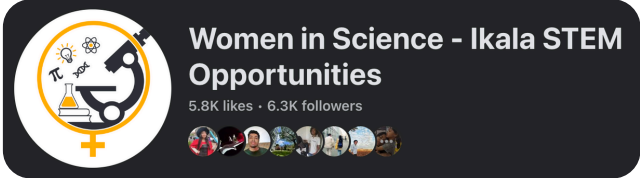


# CHAPTER SUBSAHARAN AFRICA



After a long hiatus, the Chapter Sub-Saharan Africa slowly resumed their activities in 2023. They decided to mainly focus on the well-being of the team and finding ways on how to improve the team dynamics going forward. Some of the events to achieve these goals have included organizing a brunch in Diep River on August 19, 2023 and team building in Waterfront on 11 November, 2023 where they invited friends and former members.

Managing **Ikala STEM Opportunities' Facebook page** (formerly managed by Chapter America) since March 2023 marks their first ongoing project since the long break after LAMPS (Leveraging local AstronoMy site to Promote STEM). The page is a corner where various STEM-related opportunities are being posted on a weekly basis.



# CHAPTER AMERICA



## Small Grants 2022

The Ikala STEM Small Grant program supports young Malagasy women in STEM by providing financial assistance for their academic and professional development. The first round took place in 2019 and allowed four candidates to be funded. In the second round, 11 applicants applied, and six candidates were awarded a total of \$2,100. Grants were given in two categories: research and thesis dissertation. The application deadline was on March 31, 2022. Projects funded through this program have to be conducted between June 2022 and May 2023. Dr. Ando Ratsimbazafy served as the lead organiser for this round. The funding for this initiative was raised through GoFundMe and additional fundraising efforts organised by the Chapter America (SMART).

## Small Grants Meeting 2023



In December 2023, Adelaide Miarinjara met with the grantees of Small Grant 2022 in Antananarivo, to follow up on their progress and challenges. Grantees were also reminded to return their reports.

## SMART 2022

SMART stands for “Scientists from Madagascar Are Really Talented!”, which is a Fundraising Project launched by Ikala STEM—Chapter America. The first edition was in November 2019. The second event was set as a silent auction from November 26-29, 2022, to showcase the talent of Malagasy scientists (Dr. Adelaide Miarinjara, Tiana Noelle Rakotondravony, and Tinah Martin) and to support Ikala STEM’s activities. All the profits, a total of \$753, received from this second edition of SMART was given to the project “Ikala STEM Small Grants”, which aimed to provide young Malagasy STEM researchers with financial support. The following members of the chapters served as organizing committee of this edition: Dr. Adelaide Miarinjara, Dr. Ando Ratsimbazafy, Ny Aina Rakotondravony (Communication team), Dr. Antsa Nirina Nasandratra Avo (Supervision), Tinah Martin (Logistic).

## IKALA STEM GRANTEES (2022)

1

**PRINCIA RABARY**

Anthropologie et  
Developement Durable  
Universite d'Antannarivo

2

**RAJOMASON ROJO**

Faculte de Medecine,  
parcours Veterinaire  
Universite d'Antannarivo

3

**LEA JULIE RAZAFINIRINA**

Gestion de  
l'environnement,  
Institut d'Enseignement  
Superieur d'Antsirabe  
Vakinankaratra

4

**NANCIA RAOELINJANAKOLONA**

Zoology and  
Anthropological Biology  
University of Antananarivo

5

**FELANA NIAINA RAKOTO JOSEPH**

Sciences de la vie et  
de l'Environnement  
Universite  
d'Antannarivo

6

**NY ONY LALAINA RATOVOJANAHARY**

Mention Zoologie,  
Biologie Animale,  
University of  
Antananarivo

- Dissertation grant
- Research grant



# CHAPTER ASIA



## Meet & Greet

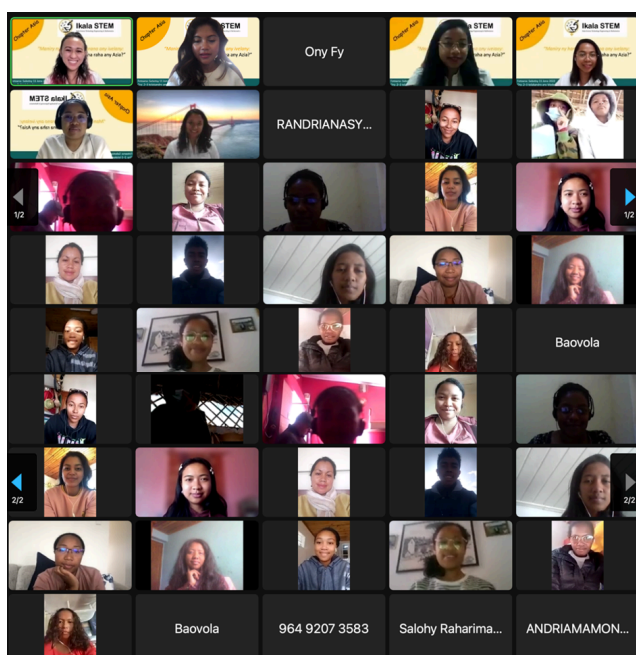
The “**Meet & Greet**” workshop was held on August 19, 2023, hosted by Ikala STEM members living in Asia. The “Meet & Greet” was held online and brought together around 25 attendees. It was an informal meeting for Ikala STEM members from around the world, and featured attendees’ presentations, games and open discussions. “Meet & Greet” is a relaxed networking event to meet and connect Ikala STEM members, and to share experiences.

## Higher Education Abroad: Why not in Asia?

Accessing higher education is a major investment, especially for Malagasy students considering private universities or studying abroad. Most top universities in Madagascar are in large cities, forcing students from smaller towns to relocate. While many dream of studying abroad, financial constraints and competitive scholarships limit opportunities, often leading students to choose Europe due to familiarity and established academic partnerships. However, there’s significant potential in Asia.

“**Higher education abroad: Why not in Asia?**” is a seminar launched by Ikala STEM - Chapter Asia to guide Malagasy STEM students, especially women, toward study and career opportunities in Asia by offering insights on the benefits, challenges, and steps to success. The seminar is open to all Malagasy citizens interested in postdoctorate STEM studies in Asia, regardless of the place of residence and with no gender restrictions nor participant limits. This second edition which was held online on March 4, 2023, gathered approximately 35 participants. Two candidates will be selected to receive support in their procedure to study or work in Asia: finding scholarships, preparing applications and identifying host institutions. This will enhance their chances of securing an opportunity in Asia. For those seeking this personalised guidance, the announced eligibility criteria included:

- Malagasy citizenship and residency in Madagascar
- Membership with Ikala STEM (permanent, regular, or “friends” of Ikala STEM)
- A bachelor’s, master’s, or doctoral degree





# CHAPTER EUROPE



## Gen'Youth LAB 2022

In 2022, the Europe Chapter proudly organized the Gen'Youth 2022 Lab Experience, a project that brought together 16 high school students from CEG Ampefiloha (Antananarivo). The primary goal of this initiative was to offer students an opportunity to immerse themselves in the fields of research and STEM careers, inspiring them to pursue STEM-related studies in higher education.

During the 2022 All Saints' vacation, the students visited a range of companies, research laboratories, and hospitals, thanks to the generosity of our collaborators: Airtel Madagascar S.A., Eclasia Group Maurilait, the Entomology Laboratory (Faculty of Sciences), the Laboratory of General Pharmacology, Pharmacokinetics, and Cosmetology (Faculty of Sciences), the Institute and Observatory of Geophysics of Antananarivo (including the Remote Sensing and Environment Laboratory, Seismology Laboratory, and Applied Geophysics Laboratory), and Joseph Ravoahangy Andrianavalona Hospital (Biochemistry Laboratory).

Guided and mentored by their "Zoky" from Ikala STEM, the students prepared internship reports summarizing their learning experiences during these visits. The reports were written using computers at the Campus Numérique Francophone in Antananarivo, made available to Ikala STEM by the Agence Universitaire Francophone, one of our sponsors.

The students also presented their findings orally to a scientific jury during the closing ceremony in December 2022, attended by parents, mentors, and sponsors. The award for the best internship report was won by the duo RAHAJANTENAINA Lovasoa Andriniaina and RAMAROHASINA Fahasoavana Mitia, hosted by Eclasia Group Maurilait. The award for the best oral presentation went to RAKOTOMARO Hariaivo Koloina Sarobidy and NOMENARIHAJA Tolotriniavo, hosted by the Seismology Laboratory, IOGA.

No one went home empty-handed, as all participants received consolation prizes. Additionally, the mentors, "Zoky," and sponsors were presented with souvenir gifts as tokens of our appreciation for their invaluable contributions to the project.



Gen'Youth 2022 was an extraordinary experience for the students and equally enriching for the mentors and "Zoky". However, none of this would have been possible without the passion and dedication of the members of the Madagascar and Europe Chapters, the generous donations from permanent members and friends of the Europe Chapter, sponsorship from the STAR Group, and financial support from the Ministry of Digital Development, Digital Transformation, Posts, and Telecommunications.

A heartfelt thank you to everyone involved!

## « Zoky » Ikala STEM

RAHARIJAONA Mikaela  
MANDIMBIARISOA Fanantenana  
ANDRIAMPANARIVO Fahasoavana  
RANDRIAMANANTENA Domohina  
Dr RANDRIANARISON Mino Patricia  
ZAFILAZA Nathalia  
RAVELOSON Fy  
HAINGOTIANA Cynthia

## Our Warriors Ikala STEM

ZAFIMAHITA Ainah Murielle  
ANDRIAMBOLOLONA Ony Fy  
RAKOTONDRAIBE Tsiriandrimanana  
RAKOTONINDRINA Tantely Vahatra  
RAZAFINDRAKOTO Hoby  
BARIMALALA Rondrotiana  
RAHARIMBOLAMENA Gloria  
RAHANTAMIALISOA Faniry  
RAHARISON Tsiaro  
TSITOKANA Mireille  
RAZAFINDRATSIMA Amboaraso  
FANEVAMAMPIANDRA Herinirina  
RAKOTONIRINA Hanitra  
NARINDRANJANAHARY Fidiarizo  
ANDONIAINA Tahinasoa  
RANDZAVOLA Lyra

## Building bridges: An adventure in Como, Italy 2023

While Ikala STEM members know each other through regular online meetings and events, it's easier to connect, make new friends, find support and work together after meeting in person. Additionally, we can communicate more effectively when planning events within and between chapters. The Chapter Europe organized a team-building event in Como Italy, to strengthen bonds between existing members and welcome new ones from May 19th to May 21st, 2023. We rented a nice apartment with a garden in Cassina Rizzardi to host everyone. Two groups were involved in the team-building: the organizers and the participants.

### Connecting the organisers

Faniry (living in Italy, with valuable insights on life there), Miary (skilled with social activities being outgoing and loving connecting with people) and Ranja (skilled at planning and coordinating events), were in charge of organising the team-building. Lyra and Hanitra's support was invaluable throughout the whole process. This organisation phase brought the organisers together early on, which was the first step towards a successful team-building event.

### Connecting the participants

#### *The ones who couldn't make it, but were super motivated!*

The Europe Chapter members from the United Kingdom faced the new challenges of Brexit. Besides the challenges that most of us are facing, getting a Visa to Italy within the time frame became a deal breaker. We truly appreciate everyone who responded to the call but couldn't make it in the end.

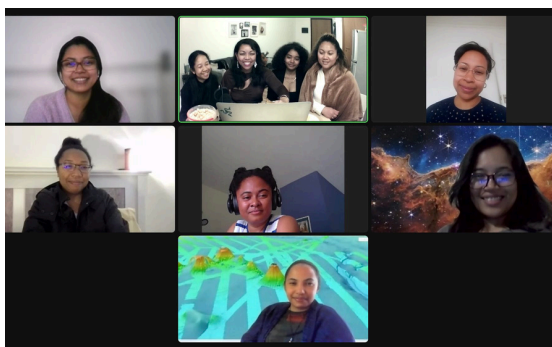


#### *The ones who could make it!*

Mireille (from Montpellier), Fitahiana (from Marseille), Jeanne Emma (from Dijon) and Ranja (from Zurich) could make it to Como, Italy.

While mornings were for travelling, bonding started on the first evening in the form of a pasta workshop to keep the Italian vibe. The dinner was followed by a long conversation allowing the team members to bond.

The second day was the most adventurous and helped the members bond even more closely with a beautiful palette of personalities. The day started with a common breakfast, followed by a picnic on Lake Como. The first challenge, which led to a hilarious outcome, was reaching the lake by bus since none of us spoke Italian. The picnic by the lake was coupled with the Skittles game, where the team shared information they felt comfortable sharing to learn more about each other. After the game, a nice debriefing was performed. Each person shared the strengths and weaknesses of the other members to help each other emphasise and appreciate their strengths, and work on what one would see as weaknesses, and support each other on how to best deal with them. A nice walk in the beautiful city of Como ended the day trip to the lake. A game night was scheduled for the evening, inviting all chapters. This was a way to bond within a relaxed environment. Members, from Chapter Asia, America, Madagascar, South Africa and Europe participated in the game held online.



### *A weekend of growth and forging Connections,*

The team-building event in Cassina Rizzardi was a resounding success. It not only strengthened existing relationships but also forged new bonds among team members. The team-building event not only helped us learn about each other's skills for future Ikala STEM projects but also deepened our personal connections. After a year, the participants still care about each other and stay in touch. Additionally, it helps us support each other in navigating the many challenges we face. These challenges include balancing work, studies, internships, health, family, and motherhood, as well as major life transitions like moving, job changes, and securing funding. By investing in team building, we can continue to achieve our goals together in the most efficient way.



# Ikala Ketrika

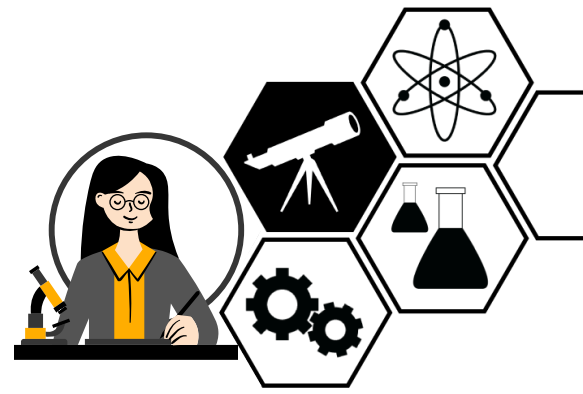
## 8th-Anniversary Celebration

Organized by the Birao Foibe (main branch), Ikala STEM's 8th-anniversary celebration took place on Saturday, May 11, 2024, at the AJU Center in Ankato, Ambohidempona (Antananarivo). The first part of the event was marked by an inspiring lecture by Professor Fanja Rakotondrajao, a teacher-researcher in mathematics at the University of Antananarivo.



## Volunteer Expo Mada

On December 2, 2023, Ikala STEM participated in the “Volunteer Expo Mada” exhibition organized by One Way for Change at Saint Michel Amparibe under the theme “Firotsahana an-tsitrapo antoky ny fandrosoana” (“Volunteering is essential for development”). The event highlighted the importance of volunteering for social progress, bringing together various organizations, including Ikala STEM. Conferences addressed topics such as “Feminist men and their commitment to the fight against the Gender Based Violence (GBV)” “Sustainable Volunteering, Sustainable Development” and “Young volunteer, actor in development.” Ikala STEM shared with participants the importance of its role in promoting women in STEM in Madagascar.



## IDWGS

Members of Ikala STEM Madagascar gathered for a convivial and enriching celebration of the International Day of Women and Girls in Science, on February 11, 2024. The gathering combined learning and sharing, with a special appearance by President Tsiriandriamanana Rakotondraibe, who led a session on time management.

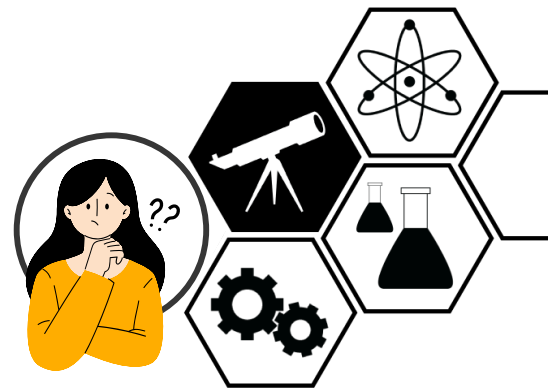


## Lead'Her2STEM

The Lead'Her2STEM event brought together young girls aged 15 to 18 from the Skoto Zazavavy Mpanazava Sampana Mena group on May 27, 2023, at the “Lycée Technique et Professionnel d'Alarobia (Antananarivo)”. During this inspiring workshop, Ikala STEM representatives, including Andry Midera, Domohina, and Miharisoa Caren, shared their career paths in STEM and guided future leaders on the steps to follow to build a career in this field, including Computer Science (technology), Veterinary Medicine, Agronomy, Medical Biochemistry and Animal Biology.



# Azovy Ikala?



## TSITOKANA Mireille Elodie

Simple Member - Chapter Europe (2021-Present)



Originally from Antalaha, where I earned my baccalaureate in the science stream (series D) with honors ("Très Bien"), I left Madagascar, and then the African continent, to pursue a PhD in Health Biology with a specialization in Neuroscience/Neuropharmacology at the University of Montpellier (France). My research focuses on developing the medicines of tomorrow to treat brain diseases. I conduct my work under the supervision of renowned neuroscientists: Drs. Jean-Philippe PIN, Philippe RONDARD, and Laurent PREZEAU. My decision to start a career in brain research and its treatments stems from an initial curiosity about this organ, which surprisingly evolved into a genuine passion for Neuroscience as a whole (everything related to the brain, spinal cord, and nerves) and a desire to take action.

A little backstory: since childhood, I've been intrigued by questions about the brain. For instance:

- What biological factors make the cognitive abilities of top-ranking students superior to others?
- If lung issues manifest through coughing, wheezing, or severe difficulty breathing, how do brain disorders manifest?
- Why do some young people around me experience seizures and psychotic episodes?

These observations left a lasting impression on me, as such phenomena are often attributed to supernatural causes in Madagascar. Those affected were stigmatized and rarely, if ever, received proper medical care. Their social lives and education suffered as a result.

Seeking answers, I pursued a bachelor's degree in Biochemistry in Algeria and continued my studies in Clermont-Ferrand, France, for a Master's degree in Drug and Health Product Sciences. The more I learned about the brain through optional Neuroscience courses, the more I was in awe of the beauty within the complexity of the nervous system. Did you know that our vision, tastes, sense of touch, emotions, feelings, thoughts, and even lesser-known conditions such as pain from a gentle caress or compulsive involuntary movements are all controlled by this system?

In science, every answer to a question raises a multitude of new inquiries. To address them, hands-on experimentation is often essential. Behind the scenes, researchers theorize to explain their observations but also conduct benchwork experiments, sometimes in a "MacGyver" fashion due to limited resources. This intellectually stimulating world constantly seeks excellence, propelled by constructive peer critiques. It is a field with more failures than successes, making the latter all the more rewarding. It is also highly competitive but must adhere to research ethics and integrity.

I joined the Ikala STEM association in 2021 to support and share knowledge with future generations. With that in mind, I'd like to share a valuable lesson I've learned during my four years as an early-career researcher. When choosing a profession driven by passion, as I did, it's natural to fully dedicate yourself. You might work around the clock for months or even years because you love what you do, believe in it, and want it to succeed. However, this often leads to persistent physical fatigue. Emotional exhaustion also builds up, fueled by stress, repeated failures, and the need to bounce back quickly with solutions that demand time, energy, and emotional restraint. This creates a cycle of intense intellectual and mental exertion over long periods. The imbalance between professional and personal life becomes evident.



You spend less time and attention on loved ones, and heightened irritability leads to conflicts. These tensions negatively affect morale, further contributing to distress. Sleep disorders and gastrointestinal issues may worsen, driven by anxiety, negative emotions, and fatigue, further degrading personal life quality. This cocktail of exhaustion leads to a loss of joy and motivation for what once thrilled you, which is disheartening. Eventually, your body might react severely, such as a health crisis requiring hospitalization. What I've shared isn't unique to research or specific to women, though they are often more at risk. Burnout is also experienced by doctors, nurses, athletes, business leaders, and others. My words are not meant to scare you or dissuade you from pursuing a passion. On the contrary, follow what you believe will bring fulfillment but stay alert to signals from your body and mind.

- Pain, at all levels, serves a vital function. While unpleasant, it acts as a warning, helping us recognize our limits and prompting us to stop. Let's listen to these signals.
- In response to such hardships, some may withdraw, which is a sign that must be addressed by doing the opposite—reaching out to others for support and to feel better. Needing help is not a sign of weakness. On the contrary, your strength is reflected in your resilience and determination to recover. Not everyone would push their limits as you have. If you don't find help among those close to you, consider speaking to strangers, such as a psychologist or mentor, through programs like the "Women in Science Mentorship" initiative in France. Members of our Ikala STEM association can also offer support, so don't hesitate to reach out.
- Finally, recovery from burnout doesn't happen overnight.

*Be patient and take care of yourself. ☺*

## ANDRIANTEFY Olifara

Vice Coordinator - Chapter Madagascar (2022-2024)

*"Difficulties often prepare ordinary people for an extraordinary destiny"*



My path has been one of constant challenges, both personal and professional. Having failed to pass my high school diploma ("Baccalauréat"), the path to my dream course - pharmacology at a public university - quickly closed in front of me. Despite the pitfalls, I decided not to let this obstacle hold back my ambition and joined a private university, where I worked tirelessly to reach the same level as my colleagues from public training.

After my Master's degree, I seized my first professional opportunity as an immunology laboratory technician. With perseverance and hard work, I quickly progressed to the position of research engineer. This new step fueled my passion and ambition to deepen my research skills.

In parallel with my work, I developed a thesis project. However, despite my best efforts, my application for a doctorate was initially rejected, as the only doctoral school corresponding to my project was the public university that had previously closed its doors to me.

Fortunately, my professional supervisors, convinced by my potential, firmly supported my application, which is now well underway. Without further ado, I have already moved ahead with my thesis project, with the same determination that has guided me so far.

To add even more challenge to this adventure, the unexpected arrival of my baby led me to redouble my organization to maintain my professional and personal commitments. This latest ordeal reinforces my conviction that resilience and hard work can open doors even when they seem closed and that every additional challenge is an opportunity to go even further in realizing my ambitions.

# Ik'Arahaba

Ikala STEM proudly congratulates its members on recent achievements, including thesis defenses, journal publications, scholarships, grants, and conference abstract acceptances. The following updates were shared with the newsletter team. Contents have been kept in their original publication language except for the awards section. Click the underlined link for more information.



## THESIS DEFENSES

### Licence

**ANDRIANARISON Iriela Tendry Notiavina**, Licence - Génie mécanique et Industriel à l'école supérieure polytechnique d'Antananarivo, "Étude d'un système de Pompage Photovoltaïque pour Irrigation agricole."

**NOMENJANAHARY Lovasoa Sarobidy**, Licence - Météorologie et Hydrologie, "Etude de la pollution à Antananarivo, comparaison entre les observations satellitaires et les mesures au sol."

### Master

**ANDRIAMAMORISOA Lalaina Mirado**, Master II - Entomologie, "Sensibilité aux insecticides des puces *Synopsyllus fonquerniei* et *Xenopsylla cheopis* : détermination des doses diagnostiques et recherche d'alternatives."

**RAFANOMEZANTSOA RAOELISON Ny Zo Harinaivo**, Master - Télécommunications (Parcours : Génie des Réseaux et Transmission), "VOIP : son utilisation dans les centres d'appels."

**RAMAROSON SETH McLiola**, Master II - Hydrogéologie et assainissement, "Caractérisation hydrodynamique des eaux souterraines dans quatre communes du District de Miandrivazo, Région Menabe."

**RANDRIANALISOA Avotramalala Najoro**, Master II - Marine sciences, "Demersal communities on Madagascar's western shelf and slope."

**RAVELOSON Stéphanie**, Master II - Bioanthropology: physical anthropology, "Influence of environment on some anthropometric characters of two adult populations: Sakalava of Menabe and Merina of Analamanga", 2022.

**RAZAFIARISOA Eline**, Master II - Mathématiques Appliquées, Spécialisation : Combinatoire et Optimisation. "Matrice circulante et Matrice de Toeplitz appliquées aux Processus Stochastiques."

### PhD

**MIARISOA Jeanne Emma**, PhD - Biodiversité et écosystèmes fossiles et actuels - École doctorale des Écosystèmes Naturels en cotutelle avec l'École Pratiques des Hautes Études, "Variabilité intra et interspécifique de la mandibule des espèces appartenant à la famille des Lemuridés en fonction des facteurs écologiques", 2024.

**RAJOHNSON Sambatriniaina**, PhD - Astronomy, "Exploring the evolution and hidden large-scale structures of galaxies with MeerKAT HI surveys", 2024.

**RAKOTONIRINA Nivohenintsoa**, PhD - Sciences de la Vie et de l'Environnement, "Études taxonomiques de quelques espèces de grands arbres du genre *Dalbergia* L. f. (*Fabaceae*) de Madagascar, basées sur les caractères morphologiques reliés à l'écobiogéographie en vue de leur gestion durable", 2023.

**RAMAHAVALISOA Famenoantsa Francine**, PhD - Biologie végétale, "Paramètres génétiques et environnementaux influençant la propagation et la croissance initiale du *Tsiperifery* (*Piper spp.*) en vue de sa domestication", 2024.

**RANAIVOSON Rindra Manasoa**, PhD in Botany - University of Chinese Academy of Sciences (UCAS), "Diversification and genome size evolution in *Cyphostemma* Planch. (Vitaceae)", 2024.

**TSITOKANA Mireille Elodie**, PhD in Health and Biology: Neuroscience/Neuropharmacology - University of Montpellier, "Metabotropic glutamate receptor-specific nanobodies as innovative tools to target the brain", 2024.

### HDR

**RABETOKOTANY née RARIVOSON Nantenaina Volamahefa**, Habilitation à Diriger des Recherches (HDR) - Ecole Doctorale Sciences et Techniques de l'Ingénierie et de l'Innovation/Equipe d'Accueil Doctorale Ingénierie des Matériaux et des Matières Premières, "Méthodes alternatives et innovantes pour la caractérisation de substrats divers : sols, produits résiduels organiques, produits pétroliers", 2022.

**RANDRIANARISON Mino Patricia**, Habilitation à Diriger des Recherches (HDR) - Ecole Doctorale: Ingénierie et Géosciences (INGE) - Université d'Antananarivo, "Emission des gaz à effet de serre des énergies et des matériaux dans l'optique des Objectifs du Développement Durable", 2023.

# AWARDS

## Scholarship / Fellowship

**ANDRIARIMANANA Sylviane**, Sophie Germain Scholarship from the Fondation Mathématiques Jacques Hadamard, University of Paris Saclay, 2023.

**NOMENJANAHARY Lovasoa Sarobidy**, Erasmus + Scholarship: a mobility grant from the European Union to support a Master II study in Atmosphere and Climate, University of La Reunion, 2024.

**RABETOKOTANY née RARIVOSON Nantenaina Volamahefa**, TWAS-SISSA-Lincei Research Cooperation Visit Programs: to support a visit to a research laboratory in Italy, 2024.

**RAKOTONDRAIBE Tsiriandrimanana**, postdoctoral fellowship supported by the European Union (Grant NoDCI- PANAF 2020/420-028) through the African Research Initiative for Scientific Excellence (ARISE), pilot program, 2023.

**RANDRIANALISOA Avotramalala Najoro**, Master thesis was part of the Western Indian Ocean (WIO)-Benth project, which is a Western Indian Ocean Marine Science Association (WIOMSA), Marine and Coastal Science for Management (MASMA)-funded programme in collaboration with the Ecosystem Approach to Fisheries (EAF)-Nansen Programme, 2022.

**RANDRIANALISOA Avotramalala Najoro**, Nippon Foundation- Partnership for Observation of the Global Ocean, Centre of Excellence (NF-POGO CofE) in Observational Oceanography (10th cohort) : This was a 10-month study program in observational oceanography at the Alfred-Wegener-Institute Helmholtz Center for Polar and Marine Research (AWI) in Germany, for 10 students each year, 2023-2024.

**RASOANAIVO Hoby**, Chevening Scholarship, funded by the Foreign, Commonwealth and Development Office (FCDO) United Kingdom government: to support a Master in Animal Behaviour: Applications for Conservation at Anglia Ruskin University, Cambridge, England, 2023.

**RAZAFIARISOA Eline**, funding from the Centre International de Mathématiques Pures et Appliquées (CIMPA): to support a Master II in Probabilité, Statistiques et Applications aux Vivants (M2PSAV) for 6 months in Côte d'Ivoire, Africa, followed by a placement in France or Africa, with the opportunity to do a PhD following the obtention of the diploma, 2024.

## Grants

**ANDRIANTSOA Ranja**, co-founder of Merall-Bioproducts GmbH (former Marmorkrebs Bioproducts), a startup Awarded 1st at the German Food-Startup Award 2023 at the Innovate Convention 2023, in Osnabrueck. The startup was successfully incorporated in June 2024.

**FANEVAMAMPIANDRA Herinirina**, through the Fianaralab association, received funding from several partners, including the University of Sherbrooke and the Groupe de Coopération Internationale de l'Université de Sherbrooke (GCUIS) in Canada, to implement the R.A.N.O.S.O.A project, which involves deploying a 10m<sup>3</sup> solar pump at the University of Fianarantsoa. The pump was commissioned in December 2023. This year, Fianaralab secured funding to organize the PV FIANARA 2024 summer school at the Universities of Fianarantsoa and Tuléar from November 2 to 14, 2024. Over two weeks, 120 young people were trained in the manual fabrication of photovoltaic modules.

**MIARISOA Jeanne Emma**, Visit of collection was funded by the AP program of Ecole Pratique des Hautes Etudes. Details of the funded project can be found at the following [link](#).

**MIARISOA Jeanne Emma**, The Rufford Foundation: Habitat Suitability, Population Size and Distribution of the North-Western Madagascar's Lemurs: Implications for their Conservation, 2023.

**RABENORO Noarinitiana Sanda Rohiniaina**, thesis project funded by the Laboratoire Mahaliana, 2023.

**RABETOKOTANY née RARIVOSON Nantenaina Volamahefa**, through the Service de Coopération et d'Action Culturelle (SCAC) Ambassade de France for the project: Appui aux Renforcements de capacités des enseignants et formation des étudiants du Master Professionnel du Parcours Bioénergies et Energies Nouvelles (ESPA), 2022.

**RAKOTOARIVONY M. Ny Aina**, my research on Assessing the impacts of invasive plants on ecosystem characteristics using multi-scale imaging spectroscopy has been selected for funding by the Future Investigators in NASA Earth and Space Science and Technology (FINESST) program 2024, which is a program for graduate students to design and lead research projects specifically aligned with NASA's Science Mission Directorate goals.

**RAMAHAVALISOA Famenantsa Francine**, national laureate of Ma thèse en 180 secondes (MT180): a contest on scientific outreach where the PhD candidates present their research project in plain language in exactly 180 seconds.

**RANDRIANARISON Mino Patricia**, through the Projet d'Amorce Académie de Recherche et d'Enseignement Supérieur (ARES) Belgium, for the project: Installation d'une unité pilote LOW-COST de traitement des eaux usées industrielles par filtration sur charbon actif et pouzzolane, 2024-2026.

**RANDRIANARISON Mino Patricia**, a funding from the France Embassy through the Projet d'Enseignement Supérieur- Renforcement de compétence: to support the preparation of her Habilité à Diriger des Recherches (HDR) diploma, 2022.

**RANDZAVOLA Lyra**, a funding of £500 000 from the United Kingdom Research and Innovation, Medical Research Council (UKRI-MRC), for the project: "Off-the-Shelf" Chimeric Antigen Receptor-based immunotherapy of Systemic Lupus Erythematosus by targeting B cells and plasma cells, 2023.

## Prizes

**ANDRIARIMANANA Sylviane**, Special mention from the jury for the Maryam Mirzakhani 2024 prize, which rewards very junior female students for a first research project or bibliographical study in mathematics, for her M1 project entitled “MODEL INTERPRETATION: From game theory to application with neural networks”.

**RANDRIAMANAKOTO Zara**, Selected as one of the “2023 National Geographic Explorer”, I have been awarded a research grant by the National Geographic Society to launch my research group and conduct a multiwavelength project on collisional ring galaxies to better understand star formation process in our Universe, 2023.

**FANEVAMAMPIANDRA Herinirina** was selected from among 6,000 candidates for the Women in Africa Young Leaders 2023 program. The WIA Young Leader Program is an initiative of the Women in Africa organization, which supports women under the age of 40 who play a key role in promoting the emergence of the African continent. Through her participation in this program, FANEVA aimed to inspire young African women to actively participate in the necessary transitions for a prosperous Africa.

**RABETOKOTANY née RARIVOSON Nantenaina Volamahefa**, prize of the 3rd best poster during the International Conference of Tropical Woods, 2024.

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### FARAMAMIARIMILA Lovarisoa

**L. Faramamiarimila**, T Ramananantoandro, Ecole Supérieure des Sciences Agronomiques/ EDGNRD/ Université d'Antananarivo. “Etude de la consommation en bois dans la construction de case traditionnelle dans la région sud-est de Madagascar”. 28-30/11/2023, Fianarantsoa, Journée nationale de la recherche 2023.

**L. Faramamiarimila**, J. Rasoma, Facultés des Sciences/Sciences de la Vie/Université de Fianarantsoa. “Evaluation de la restauration forestière dans le Parc Ivoloïna, Région Antsinanana, Madagascar”. 28-30/11/2023, Antananarivo, Colloque International de EDGNRD 2023.

**L. Faramamiarimila**, T Ramananantoandro, Ecole Supérieure des Sciences Agronomiques/ EDGNRD/ Université d'Antananarivo. “Perception and potential of species used in the construction of traditional houses in the antsimo antsinanana region of Madagascar”. 21/03/2024, online World Wood Day Symposium 2024.

**L. Faramamiarimila**, T Ramananantoandro, Ecole Supérieure des Sciences Agronomiques/ EDGNRD/ Université d'Antananarivo. “Wood Consumption Dynamics in Traditional Housing Construction: A Case Study in the Vatovavy Region of Madagascar”. 14-21/07/2024, Rwanda, Association for Tropical Biodiversity Conservation annual meeting 2024.

**L. Faramamiarimila**, T Ramananantoandro, Ecole Supérieure des Sciences Agronomiques/ EDGNRD/ Université d'Antananarivo “Variation factor of wood consumption and durability in traditional housing construction in the Vatovavy and Atsimo Antsinanana region”. 26-28/08/2024, Antananarivo, International Conference for Tropical Wood 2024.

### JERRY Soanomeiny Lisiane

**Jerry, S. L.**; Roddy Michel, R.; Daniel, R.; Marc, L. - “Estimation of reef fishing effort using GPS tracers in Ranobe Bay, Southwestern Madagascar”, 12th WIOMSA Scientific Symposium, 10-15 October Gqebeha, South Africa.

### MARTIN Tinah

Hayley Caitlin Drennon, Vicki Lynn Ferrini, **Tinah Martin** and Sheila Caceres Ferreras, Lamont-Doherty Earth Observatory of Columbia University, Palisades, United States. “Empowering a Diverse Workforce: Engaging Students in Ocean STEAM Through Seafloor Mapping”. American Geophysical Union - Washington D.C, 2024

Rochelle Wigley, University of New Hampshire Main Campus, Durham, NH, United States, Juliet Kinney, University of New Hampshire Main Campus, Center for Coastal and Ocean Mapping, Durham, United States and **Tinah Martin**, Lamont-Doherty Earth Observatory of Columbia University, Palisades, United States. “Growing International Networks in Seafloor Mapping through Nippon Foundation/GEBCO Training Program Student Lab Visits: Benefits of hosting and participating”. American Geophysical Union - Washington D.C, 2024

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### NOSIHARIMINO Larissa

**Nosiharimino Larissa**, Science expérimentale et Valorisation des Ressources Naturelles à l'Ecole Doctorale de Gestion des Ressources Naturelles et Développement (Sciences Agronomiques/ Université d'Antananarivo). “Facteur de dynamisation du volontariat pour la protection de l'environnement”, 16/10/2024 à l'Ecole de sciences agronomiques de l'Université d'Antananarivo (Ankatso), Colloque scientifique international de l'EDGNRD 2024: gestion de ressources naturelles et développement: Enjeux et Perspectives.

### RAKOTONDRAVAO Michelle

**Michelle Rakotondravao**, Application Scientist, YMC Co., Ltd, Kyoto-Japan, “Simultaneous analysis of tryptophan metabolites in the kynurenine pathway using a bioinert high-performance liquid chromatography column”, July, 24-27, 2024 in Fukuoka, Japan, NEURO 2024.



**RABETOKOTANY née RARIVOSON Nantenaina Volamahefa**

O. E. Rasoanirina, A. Rajoelisoa, **N. Rabetokotany-Rarivoson**, Ecole Supérieure Polytechnique d'Antananarivo/ED STII/Université d'Antananarivo, "Rapid determination of gasoline and diesel characteristics by using FTIR spectroscopy: Study from Madagascar", 08-12/08/2022, Maurice (online), Virtual Conference on Chemistry and its Applications 2022.

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Ihanta Rahariseheno, Henriette Marie Emma Marovavy, Huchard Paul Berthin Randrianirainy, **Nantenaina Rarivoson Rabetokotany**, Jacomet Oliva Andrianaivoravelona, Ecole Supérieure Polytechnique d'Antananarivo/ ED STII/ Université d'Antananarivo, "Elaboration de fioul lourd 180 à partir de l'huile de Tsimororo et de l'huile de Jatropha", 29/11/2023 à Antananarivo, Madagascar, Journée scientifique de l'Ecole Supérieure Polytechnique 2è édition.

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H. Lamindrazana, **N. Rabetokotany-Rarivoson**, Ecole Supérieure Polytechnique d'Antananarivo/ ED STII/Université d'Antananarivo, "Rapid determination of Malagasy bioethanol characteristics by using FTIR spectroscopy", 26-28/08/2024 à Antananarivo, Madagascar, International Conference on Tropical Wood - Advancing the sustainable use of tropical forests.

Miza Dimbinandriatahina, Jean-Luc Rasoanaivo, Achille Ravoninjatovo, and **Nantenaina Rabetokotany-Rarivoson**, Ecole Supérieure Polytechnique d'Antananarivo/ ED STII/Université d'Antananarivo, "Assessment of the bioethanol potential of jackfruit pulp (*Artocarpus heterophyllus*) from Madagascar", 25-27/11/2024 à Venise, Italie, 10th International Symposium on Energy from Biomass and waste.

**RANDRIANALISOA Avotramalala Najoro**

**Randrianalisoa Avotramalala Najoro**, Fennessy Sean, Everett Bernadine, Ranivoarivelo Lantoasinoro, BE Jean Jacques, Institut Halieutique et des Sciences Marines, Toliara, "Demersal communities on Madagascar's western shelf and slope", 10-15 October 2022, at the BoardWalk Convention Centre, Nelson Mandela Bay, Port-Elizabeth, South Africa, 12th WIOMSA Scientific Symposium: Oral presentation.

**RAHARIMBOLAMENA Gloria**

**Gloria Raharimbolamena**, University of Bristol, Oral presentation: "Exploring the multi-wavelength jet-disc properties in a high redshift Swift-Blazar", July 14-19, 2024, National Astronomy Meeting 2024, University of Hull (United Kingdom).

**Gloria Raharimbolamena**, Andrew Young, Jiachen Jiang, Daniel Kynoch, University of Bristol, Poster presentation: "Determining the hard X-ray spectrum of a luminous high redshift, Swift-BAT AGN", August 6-15, 2024, XXXII International Astronomical Union General Assembly, Cape Town (South Africa).

**Gloria Raharimbolamena**, University of Bristol, Poster presentation: "Exploring the multi-wavelength jet-disc properties in a high redshift Swift-Blazar", September 4-5, 2024, New Results in X-ray Astronomy / NewAthena UK meeting, University of Sussex (United Kingdom).

## MIARINJARA Adelaide

**Miarinjara A**, Raveloson AO, Harimalala M, Ramasindrazana B, Ayala D, Gillespie T. "Household insecticide use and rat flea resistance in Madagascar: implications for public health (Poster) Annual meeting of the American Society of Tropical Medicine and Hygiene". November 13-17, 2024. New Orleans, USA.

**Miarinjara A**, Raveloson AO, Mugel SG, An N, Andriamiadanarivo A, Girod R, Gillespie TR. "Risk factors associated with rural household flea infestations in the plague endemic area of Madagascar". (Oral presentation). Annual meeting of the American Society of Tropical Medicine and Hygiene. October 18-22, 2023. Chicago, USA.

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## RAJOHNSON Sambatriniaina

**Sambatriniaina Rajohnson**, Department of Astronomy, University of Cape Town, South Africa, "Revealing hidden structures and the neutral hydrogen mass functions of galaxies through MeerKAT blind systematic surveys of the Zone of Avoidance", August 13, 2024; Cape Town, South Africa, IAU GA 2024 - IAU Symposium 392: Neutral Hydrogen in and around Galaxies in the SKA Era.

## RARIVOARINORO Tombo Fitahiana

**Tombo Fitahiana Rarivoarinoro**, Department of Astronomy, University of Cape Town, South Africa, "MeerKAT and uGMRT observations of restarted radio AGN in the XMM-LSS field", July 8 - 12, 2024; Newcastle University and Durham University, AGN across populations continents and cosmic time.

## RAKOTONDRAIBE Tsiriandrimanana

**RAKOTONDRAIBE Tsiriandrimanana**, Oral presentation: "Development of the Fault community and velocity model database for Madagascar", 07- 08 December 2023: Journée de la Faculté des Sciences d'Antananarivo.

**RAKOTONDRAIBE Tsiriandrimanana**, Poster presentation: "Probabilistic Seismic Hazard Studies for Madagascar", Panel discussion: "Regional capacity building for IMS Station managers and operators", 19-23 June 2023: SnT2023 Science and Technology Conference, Hofburg Palace, Vienna.

## RAMAHAVALISOA Famenoantsa Francine

**F.F. Ramahavalisoa**, E. Rafitoharson, V. Rakotoarimanana, J.M. Bouvet, J.M. Leong Pock Tsy, J. Queste and P. Danthu. "Advances in Tsiperifery (*Piper spp.*) domestication: its propagation and cultivation", 14-20 Août 2022, Anger (France), International Horticultural Congress.

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## TSITOKANA Mireille Elodie

**Tsitokana Mireille Elodie**, Diem Séverine, Prieu-Serandon Pierre, Dromard Yann, Blanc Christelle, Camberlin Célia, Oosterlaken Mathieu, Chames Patrick, Kniazeff Julie, Pouget Jean-Pierre, Trinquet Eric, Pin Jean-Philippe, Prézeau Laurent, and Rondard Philippe. Université de Montpellier. "Brain-penetrating nanobodies illustrate routes for delivering biologics to the brain". 25-29 July 2024, Vienna, Austria. FENS Forum 2024 (Federation of European Neuroscience Societies Forum).

**Mireille Elodie Tsitokana**, Mathieu Oosterlaken, Pierre-André Lafon, Mathilde Keck, Héloïse Cahuzac, Jessica Monnic, Roxane Perrin, Léo Pion, Salomé Roux, Denis Servent, Patrick Chames, Julie Kniazeff, Jean-Philippe Pin, Laurent Prézeau and Philippe Rondard. Université de Montpellier. "Brain penetration of camelid single-domain antibodies: a privilege or a more common trait?" 24-26 May 2023, Lyon, France. NeuroFrance 2023.

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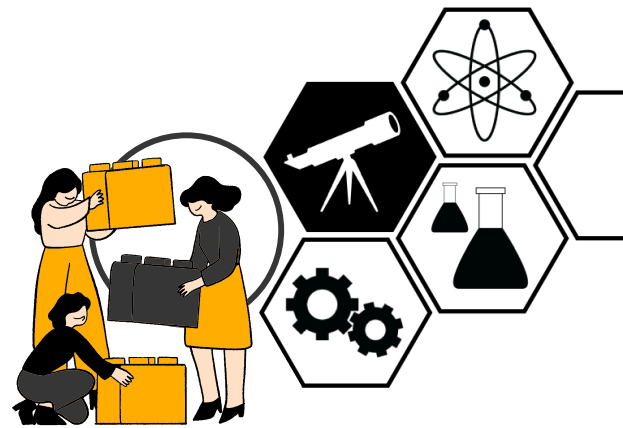
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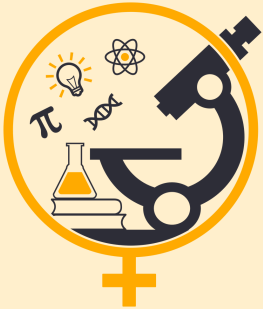




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