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INTERNATIONAL ASSOCIATION
OF VOLCANOLOGY AND CHEMISTRY
OF THE EARTH'S INTERIOR



This Newsletter is intended to keep IAVCEI Members and individual scientists informed about the activities of the Association and its bodies, and the actions of the IAVCEI Executive Committee. Past issues are posted on the IAVCEI website. Your comments are welcome. The IAVCEI Newsletter may be forwarded to non-members who may benefit from the information.

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GENEVA 2025

The IAVCEI Scientific Assembly, Geneva – June 29, 2025

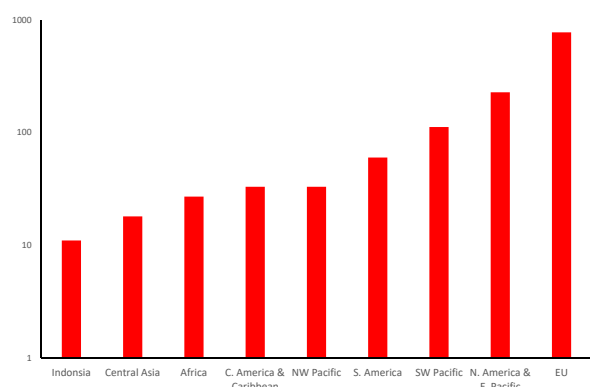
<https://sa2025.iavceivolcano.org/>



The venue: Uni Mail, Boulevard du Pont-d'Arve 40, 1205 Genève (<https://sa2025.iavceivolcano.org/congress-venue/>)

On 29th June, the Uni Mail in Geneva will open its doors for the 2025 IAVCEI Scientific Assembly. So far there are 780 of you who have signed up to pass through these doors, nearly 35 % amongst you being Early Career Researchers (ECR). The participation of ECRs has been aided through the provision of dedicated travel grants that will cover all costs for the attending IAVCEI members. A total of 42 IAVCEI travel grants were given mostly to ECRs, including attendees from 15 countries of the global south. In addition, 4 of the 8 keynote speakers are ECRs. Gender balance was also considered for keynote speakers, of whom 5 are female and 3 are male scientists with diverse expertise (see <https://sa2025.iavceivolcano.org/keynote-speakers/> for key note billing). Special attention is also being given to participants from the global south, for whom we have obtained the support of CAGI (Centre d'Accueil de la Genève Internationale, <https://www.cagi.ch/en/>).

The total crowd already represents around 50 % of IAVCEI's active membership, so it's going to be a fantastic turn out where our funding strategy has been to give voice to the largest possible number of colleagues from around the globe. It really is a great opportunity to catch up with good-old friends, and also make lots of new ones. We also represent around 70 different nationalities. This means that, following the United Nation's collation, we represent close to 40 % of the world's nations, fitting well with both the "I" and "A" of IAVCEI.



The "IA" part of IAVCEI:

Number of delegates, by volcanic region as defined by the Smithsonian Institution Global Volcanism Program (https://volcano.si.edu/volcanolist_regions.cfm), registered for the IAVCEI SA-2025.

Indonesia	Sunda-Banda Volcanic Regions	11
Central Asia	Arabia-Central Asia Volcanic Regions	18
Africa	Northern Africa Volcanic Regions	27
	Eastern Africa Volcanic Regions	
	Somalian-Antarctic Volcanic Regions	
C. America & Caribbean	Middle America-Caribbean Volcanic Regions	33
NW Pacific	Eastern Pacific Volcanic Regions	33
	North America Volcanic Regions	
S. America	Antarctic-Scotia Volcanic Regions	60
	South America Volcanic Regions	
SW Pacific	Southwest Pacific Volcanic Regions	112
	Tonga-Kermadec Volcanic Regions	
	Southern Pacific Volcanic Regions	
	Eastern Australia Volcanic Regions	
N. America & E. Pacific	Eastern Pacific Volcanic Regions	228
	North America Volcanic Regions	
EU (Europe)	Atlantic Ocean Volcanic Regions	777
	European Volcanic Regions	

Already more than 530 of you have signed up for the icebreaker on the first evening of the assembly (Sunday, 29/06), and 340 for the closing ceremony and party on the last evening (Friday, 04/07). The beers are on ice, the food is in the oven, and the band's warming up. There's always room for more, so it's never too late to sign up! To do so, please visit <https://sa2025.iavceivolcano.org/registration/>. During the six days of the assembly, there

will also be numerous get-togethers over breakfast, lunch and dinner at various venues around the city as organized by IAVCEI commissions, networks, committees and editorial groups, as well as special interest, working, lobby and other break-out groups. On Wednesday from 6–8 pm, there will be the IAVCEI Meeting of Members during which *important issues regarding IAVCEI's present and future will be presented, discussed and voted on.*

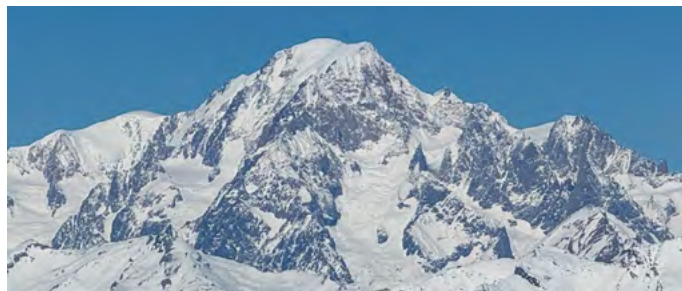


The “V” part of IAVCEI:

Field trips will visit volcanic systems in unrest and activity, including Campi Flegrei, Vulcano, Etna and Vesuvius (<https://sa2025.iavceivolcano.org/field-trips/>). Here, an IAVCEI ECR leaves a day at work in the Vulcano Fossa fumarole field

We have a packed, diverse and vibrant scientific program, with a total of 1571 abstracts having been submitted and accepted. These will be presented over four days of parallel sessions, with each day concluding between 16h30 and 18h30 when we will gather in the poster hall (<https://sa2025.iavceivolcano.org/schedule-talks-posters/>). A special outreach session has also been organized that will take place just outside the conference venue, entitled “*Enhanced volcano understanding: science demonstrations to communicate knowledge with the public*”. Scientists will present various outreach activities to the general public that will be carried out in multiple languages in line with the international spirit of Geneva. In case you cannot join in presence, you also have the choice to attend all oral contributions virtually.

We have scientific representatives from all continents, as well as from the ocean floor, biosphere and atmosphere, plus other worlds, so the knowledge sharing and discussions promise to be many and varied! We currently have around 300 signed up for conference workshops, with an average of 30 at each (<https://sa2025.iavceivolcano.org/call-for-workshops/>).



The “CEI” part of IAVCEI:

Field trips will visit monogenetic volcanic systems, as well as exhumed magmatic systems and geothermal systems, including the Eifel, Chaîne des Puys, the Adamello batholith and the Tuscan Magmatic Province. More info at <https://sa2025.iavceivolcano.org/field-trips/>. Here, Mount Blanc viewed from the SW.

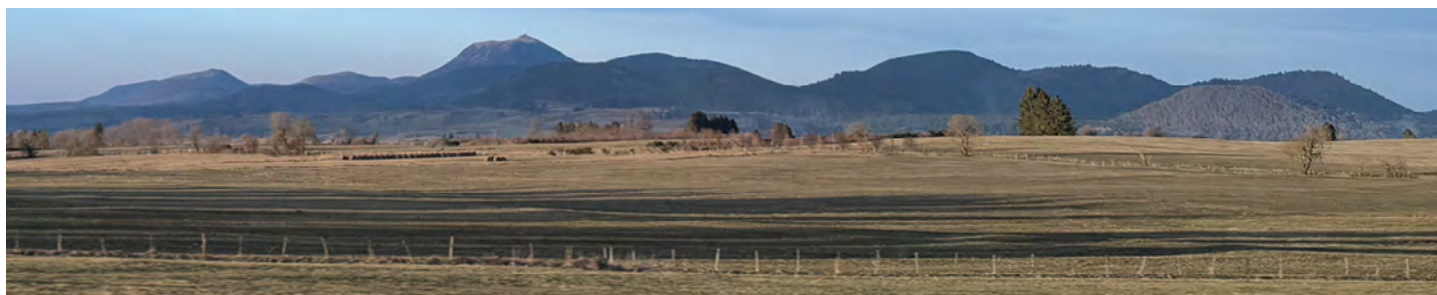
More than 100 are promised for the “Early Warning For All” workshop scheduled after the assembly during Monday July 7 to Wednesday July 9 (<https://sa2025.iavceivolcano.org/workshop-15/>). Many of the delegates will be from international organizations involved in the Early Warning for All Initiative (<https://www.un.org/en/climatechange/early-warnings-for-all>). The workshop will also involve other stakeholders who are not affiliated to IAVCEI but whom are intimately related to our work, including civil protection authorities and meteorological agencies.

Remember also that a mid-conference round table session has been organized to address the “Challenges and opportunities for women scientists in volcanology” that is open to all (<https://sa2025.iavceivolcano.org/workshop-11/>).

With so many of us in the same room and on the same page, discussion promises to be vibrant.

We're looking forward to seeing all of you soon!

Costanza, Ulli, Andy & Marta



The Puy de Dome and its attendant cinder cones, maars and lava flows: This will be the location of the 23–29 June pre-conference field trip “The monogenetic volcanism of the Chaîne des Puys, Massif Central, France” (<https://sa2025.iavceivolcano.org/content/uploads/sites/17/2024/08/01-chaîne-des-puys-field-trip-iavcei-2025.pdf>)

SECTION 1. IAVCEI – WHO WE ARE AND WHAT WE DO

1.1 IAVCEI Commissions and Network Updates

The 7th Volcano Geology Commission Workshop, January 11–17 2025, Nariño (Colombia):

A memorable outdoor experience from field time at tropical-Andean volcanoes allowing a merge of science, adventure, and community!



Workshop participants together with local scientists and campesinos, permanent first-aid staff, and volunteers at Las Mesas village. Photo taken by Alfonso Muñoz (Asociación Campesina Flor de Mayo)

The 7th workshop of the IAVCEI commission on Volcano Geology was held in Nariño (Colombia) during January 11–17. Essentially a field-based workshop, it was organized by an interdisciplinary team from the Universidad de los Andes (Colombia), in close collaboration with:

- the Asociación Campesina Flor de Mayo (a civil organization of the “campesinos” at Las Mesas Village, Nariño),
- the volcanic mapping team of the Geological Survey of Colombia (SGC),
- The Volcanological and Seismological Observatory of Pasto (Geological Survey of Colombia), and
- IAVCEI members from the University of Bologna and University of Bari (Italy).

In addition, contributions from local Civil Defense officers, the national army of Colombia, the local Red Cross, and the National Natural Parks of Colombia allowed this challenging field experience to take place in safe conditions.

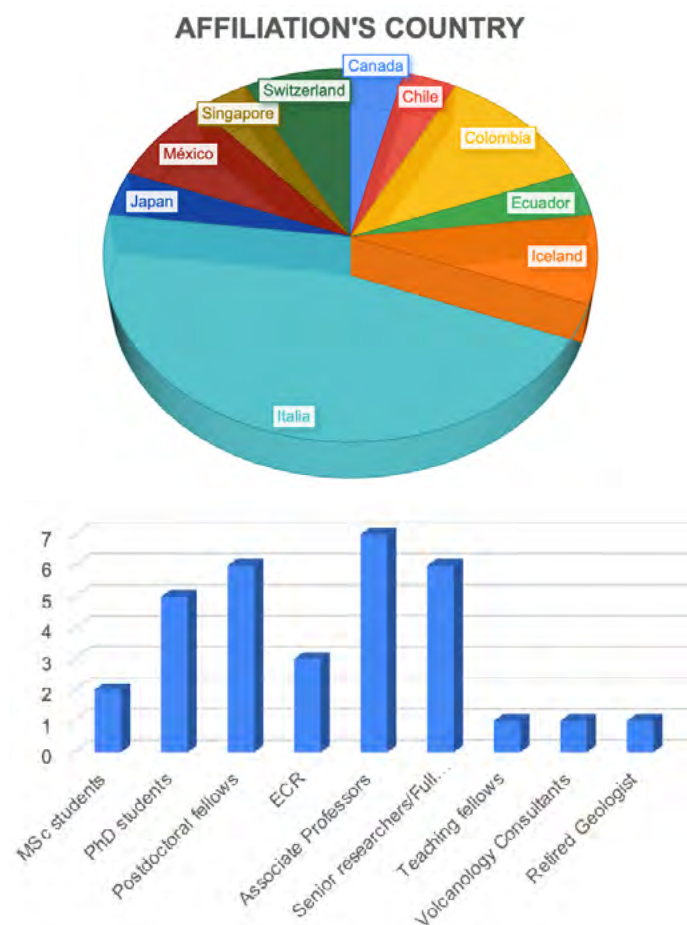
The aim of the workshop was to discuss best field practices in volcanology, including geological mapping, and the utility of mapping for other scientific disciplines and non-scientific communities. The focus was on lessons learned from mapping within the tectonic framework that results from subduction of the oceanic Nazca and Caribbean plates beneath northwestern South America. Mapping in this region is also in a climatic setting influenced by the atmospheric circulation over the Pacific Ocean, the Caribbean Sea, the Orinoco and Amazon River basins,

as well as interannual and seasonal hydro-climatic variability. These include the El Niño Southern Oscillation (ENSO), the intertropical convergence zone, and low-level jets. In this context, deep exhumation by tectonic and climatic forcing favors deep river incision and rapid landscape development, where high mountain forests and páramos emerge as some of the richest and fastest evolving ecosystems on Earth. This triggered the passion of 19th century German explorers such as Humboldt, Stübel and Reiss. These highland ecosystems are also associated with realities that have arisen through rather convoluted historical, multicultural, and socio-spatial processes, both in the past and in the present, that cannot be ignored by any field scientist working in the region.

Our open call to explore southwestern Colombia, in the context of abrupt topographic changes (300–4000 m asl) and intense crustal deformation, tectonic uplift, and tropical climate, resulted in the amassing of an amazing multicultural group of 32 international participants who gathered in the city of Pasto.

Participants attended from Chile, Colombia, Costa Rica, Spain, France, Germany, Iceland, Italy, New Zealand, Mexico, Switzerland and the USA. Most of the participants were associate Professors ($n = 7$), Postdoctoral fellows ($n = 6$), and senior researchers/full Professors ($n=6$), followed by PhD students ($n = 4$). Other participants were ECR, teaching fellows, consultants, and retired geologists. In addition, the local Colombian organizers included three associate professors from the Universidad de los Andes) and six volcano

geology contractors, plus one retired volcanologist from the SGC and one PhD student. Among the group, 48 % were women, leading to a perfect gender balance.



Participant statistics by country and career stage. IAVCEI grants were allocated to 1 PhD student, 1 MSc student, and 3 ECR

The workshop began with nine oral presentations at the Volcanological and Seismological Observatory of Pasto (Geological Survey of Colombia) covering:

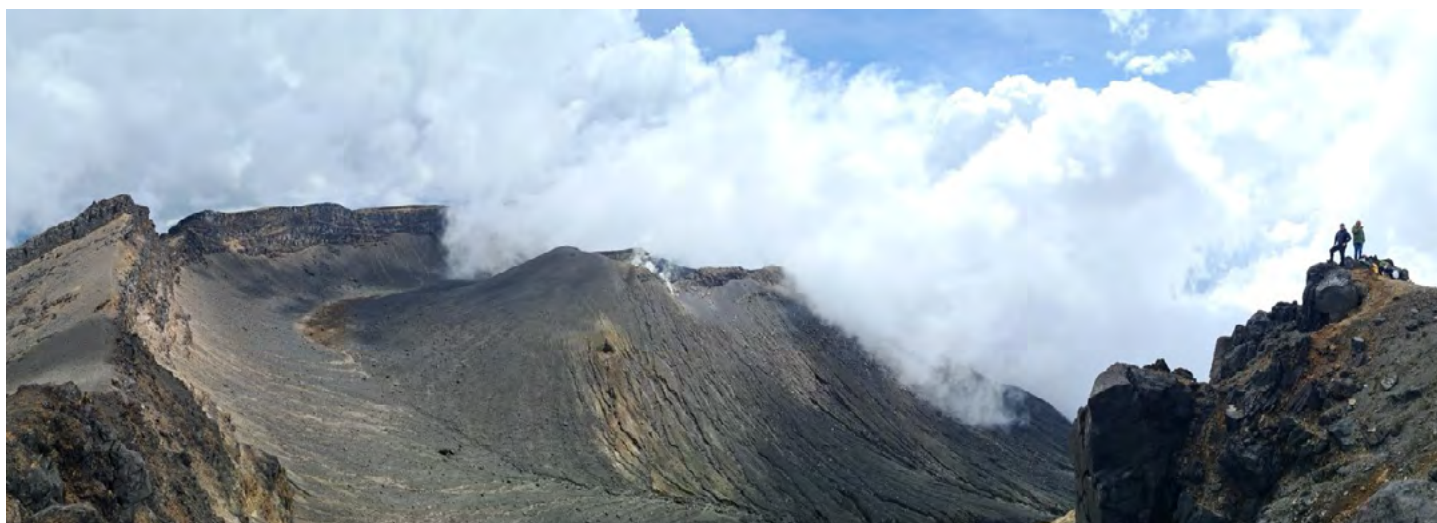
- best practices for volcanic fieldwork and mapping,
- the tectonic context of north-west South America,
- the Galeras and Doña Juana geological maps, and
- paleoclimate, archaeological and social contexts.

After a visit to the Pasto Gold Museum, a poster session was held involving 15 posters covering a wide range of topics, including:

- probabilistic volcanic hazard assessment focused on simulating block-and-ash flows at the Doña Juana volcano (SW Colombia),
- paleomagnetic investigations of scoria cones in La Palma island (Canary Islands),
- genesis of large-scale silicic magma in basalt-dominated settings in Iceland, with implications for explosive volcanism and the formation of the first continents,
- drone mapping campaigns in both the Galápagos and continental Ecuador,
- blast eruptions linked to a volcanic sector collapse at Popocatepetl (Mexico), and
- a detailed analysis on the Neapolitan Yellow Tuff Ignimbrite, one of the largest eruptions of the Campi Flegrei caldera (Italy).



Debris Avalanche Deposit on the western side of the Galeras volcanic complex and a thick sequence of PDC and fallout deposits on the southeastern side of Galeras



Panoramic view of the summit of Galeras volcano showing the horseshoe-shaped scar left by the last collapse and the youngest cone rising within the depression

Our field adventure began on January 12, and followed the road surrounding the oldest volcanic edifices that make up the Galeras volcanic complex. Along this road we viewed outcrops of Pleistocene deposits from pyroclastic density currents (PDC), fallouts, lahars, and debris-avalanches.

The next day was anomalously sunny and clear, and with special permission from the National Park authorities, and in permanent communication with the Volcanological and Seismological Observatory of Pasto, most of the group hiked to the summit of Galeras in the company of the Red Cross and members of the high-mountain first-aid staff. Thanks to the superb conditions we were able to see the stunning horseshoe-shaped scar, proximal angular unconformities, and the youngest cone of Galeras. Here, Juan Carlos Molina carried out a majestic flute recital of *Mare Nostrum* (by Jordi Savall) in memory to those lost during the tragedy at Galeras 32 years ago. Meanwhile, a smaller group walked the Camino Real trail, exploring the Holocene tephrostratigraphic record, and viewing fallout deposits exhibiting stunning banded juveniles and discussing the importance of linking detailed field records with petrological sampling strategies.

On the third day, we jumped on our “Chiva” (“Chicken bus”) lead by Don Agustín *the super driver*, and travelled towards Las Mesas village, crossing the Juanambú river canyon. We spent January 14–16 exploring the Doña Juana Volcanic Complex, which last erupted in the late 19th to early 20th centuries. Here we discussed the geological map from various perspectives, including:

- integrating geology with ecology and archaeology;
- stratigraphic gaps (hiatus) and marker beds, and
- different types and hierarchies of geological contacts.

This involved an exchange of experiences from similar volcanic contexts elsewhere, clarifying the interpretation of volcanic deposits and offering alternative solutions. The Doña Juana locations allowed us to share and learn the field techniques to adopt and the challenges to overcome when working in remote, poorly known terrains, especially where the completeness of the geologic record is compromised by fast rates of vegetation growth, weathering and erosion... and complicated by a tropical climate and active tectonics.



Our warrior “chiva” ... taking us everywhere!





Doña Juana localities along the Resina river catchment and at Las Mesas village

Even after climbing to the summit of Galeras summit, trekking down, up and across narrow river valleys and terraces, and having had the traditional soccer game, there was still energy left for a last dance.

Our local hosts, led by the Asociación Campesina Flor de Mayo, spoiled us with delicious local food and a moving closure ceremony involving beautiful Andean music and traditional dances, reminding us about the importance of placing ethical fieldwork and research in the social and environmental context.

The VGM7 Organizing Committee:

Natalia Pardo (Universidad de los Andes, Colombia)
Co-leader of the Volcano Geology Commission

Mattero Roverato (Università di Bologna, Italy)
Community Engagement and Outreach Coordinator
of the Volcano Geology Commission

With

Federico Lucchi (Università di Bologna, Italy)
Roberto Sulpizio (Università di Bari, Italy)



Soccer game at Las Mesas and lovely music at the closing ceremony

1.2 The Voice of IAVCEI Early Career Researchers

ECR profile: Amdemichael Zafu Tadesse (Addis Ababa; currently Oxford University)

Hello! My name is Amdemichael Zafu Tadesse, and I'm from Ethiopia—the birthplace of coffee, the cradle of humanity, and a country with unique geological landscapes marked by numerous active volcanoes. These volcanoes are spread along the East African Rift System. Growing up in the Rift Valley, I was immersed in this remarkable environment, which sparked my early curiosity and passion for geology, eventually leading me down the path to study volcanology.



Amdemichael closely examining a pyroclastic density current deposit at the base of Bora volcano in Ethiopia

I began my academic journey at Addis Ababa University, where I pursued both my undergraduate and master's degrees in geology. During these years, I was introduced to the Earth's complex processes, with volcanoes becoming my primary focus. Volcanic rocks, especially those from recent eruptions, hold clues about the gases emitted during eruptions, the temperatures and pressure conditions, and how magma evolves beneath the surface. My curiosity deepened as I realized the associated hazards and potential economic benefits.

In 2016, I completed my master's degree, focusing on the magmatic evolution and CO₂ degassing of Boku volcano in central Ethiopia. This research allowed me to dive deeply into magmatic processes, and measuring CO₂. It was a transformative period during which I developed my technical skills, and gained a greater appreciation for the complex interplay between volcanic systems and their surroundings.

After earning my master's degree, I had the privilege of teaching undergraduate students at Addis Ababa University, an experience that solidified my commitment to both education and research. Alongside teaching, I worked as a research assistant on several major research projects. This experience gave me the opportunity to collaborate with both local and international scientists active in volcanology, which was incredibly enriching. I gained hands-on field experience, learned advanced research techniques, and deepened my understanding. These collaborations fostered a network of expertise that I continue to benefit from in my current work.

For my PhD, I moved to Brussels to study at the Université Libre de Bruxelles, through a FNRS-Aspiran doctoral grant, and where I further pursued my interest in volcanology. My doctoral research focused on the Bora-Baricha-Tullu Moya volcanic system, one of the most poorly understood volcanic regions in Ethiopia. Through this work, I reconstructed the past eruptive history of the volcanoes that are part of this volcanic complex (Tadesse et al. 2022; 2024), studied the complex magma plumbing system that feeds it (Tadesse et al. 2023a), and investigated the interactions between volcanic and tectonic processes (Tadesse et al. 2023b). This research was particularly exciting because it added new insights to a relatively unknown system and contributed to a broader understanding of how these volcanoes behave and evolve over time. My doctoral studies provided me with a more global perspective on volcanology, as I was able to compare Ethiopian volcanic systems with those from other tectonically active regions.

Currently, I am a Fondation Wiener Anspach (FWA) postdoctoral research fellow at the University of Oxford, where I continue to explore the dynamic processes of active volcanoes. My postdoctoral work builds on my previous research, using state-of-the-art tools and techniques to analyze and quantify magmatic



Amdemichael taking a quick photo break after hours of sieving pyroclastic samples, with Baricha volcano in the background

volatiles, particularly to understand their role in influencing eruption behavior.

Despite my international academic journey, I maintain my strong ties with Ethiopia and Addis Ababa University, where I serve as an Assistant Professor. This dual affiliation allows me to contribute both to the global volcanology community and to the scientific community in Ethiopia. As I continue my research into the fascinating world of volcanoes, I'm excited to uncover more about the powerful natural process that drive volcanism and share my findings:

Stay tuned for more updates as I embark on new projects and uncover the mysteries of these magnificent natural phenomena!

I am also involved with INVOLC, the IAVCEI commission for the International Network for VOLcanology Collaboration, which works to stimulate global participation and inclusion of volcano scientists from Lower-and-Middle-Income Countries (LMICs). For those interested, I encourage you to check out the recently published best practices for international collaboration and for more information visit the commission's website:

<https://involc.iavceivolcano.org/>

Lastly, I want to express my heartfelt gratitude to my family, colleagues, mentors and friends, from whom I have learned so much and who have supported me throughout my journey.



Amdemichael measuring soil CO₂ diffuse degassing around Fentale volcano in Ethiopia.

- A.Z. Tadesse, K. Fontijn, A.A. Melaku, et al. (2022) Eruption frequency and magnitude in a geothermally active continental rift: The Bora-Baricha-Tullu Moyo volcanic complex, Main Ethiopian Rift, Journal of Volcanology and Geothermal Research, Volume 423, 107471, <https://doi.org/10.1016/j.jvolgeores.2022.107471>
- A.Z. Tadesse, K. Fontijn, L. Caricchi et al. (2023a) Pre-eruptive storage conditions and magmatic evolution of the Bora-Baricha-Tullu Moyo volcanic system, Main Ethiopian Rift, Lithos, Volumes 442–443, 107088, <https://doi.org/10.1016/j.lithos.2023.107088>
- A.Z. Tadesse, Bedassa G, Kervyn M et al. (2023b) Structural controls on magma pathways in the Bora-Baricha-Tullu Moyo volcanic system, Main Ethiopian Rift. Volcanica, 10.30909/vol.06.02.367390
- A.Z. Tadesse, K. Fontijn, P. A. Wallace et al. (2024) Eruption style and dynamics of the ~87 ka Baricha peralkaline rhyolite eruption in Ethiopia. Bulletin of Volcanology, 86(12), 93. <https://doi.org/10.1007/s00445-024-01787-9>

1.3 Insider Perspective: What's my job?

AfarTV: A journey from whales and livestreams, to global impact and volcanoes

Ryan Logtenberg (ryanlogtenberg@gmail.com)



Ryan on Fuego Volcano (Guatemala), January 2025

From an early age, I was captivated by volcanoes. My first up-close experience with an erupting volcano happened in the late 1990s during an “On-Assignment in Hawaii” online travel blog project. I had three weeks to explore the Hawaiian Islands and submit daily travelogues of my adventures. When I arrived on the Big Island, my excitement to see Kīlauea took over—I immediately rearranged my itinerary to visit it first. At the time, lava was flowing into the ocean just a short distance from the end of Chain of Craters Road. Witnessing this raw power left me in awe, along with slightly melted sandals and tripod legs as lasting souvenirs. Over the years, I returned frequently to hike Hawai'i Volcanoes National Park and document Kīlauea's ever-changing landscape.

From Volcanic Adventures to Livestreaming

As the years passed, I started a family, and we spent our winters between Maui and the Big Island. It was during this time that I set up my first webcam overlooking the Pailolo Channel, part of the Hawaiian Islands Humpback Whale National Marine Sanctuary. Every year, thousands of North Pacific humpback whales migrate to Hawaii to mate and give birth. The webcam, which eventually began streaming on my YouTube channel AfarTV (afar.tv/r/maui/), quickly became popular among whale enthusiasts. Viewers were able to watch intimate, close-up moments of these majestic creatures, as if they were standing right on the shoreline. At the time, webcam resolutions were relatively low resolution (720 pixel) footage, so after a few years, I set out to upgrade the stream to 4k. After a successful crowdfunding campaign supported by the generous viewers of AfarTV, Hawaii's first 4k livestream webcam went online in 2021.

A Shift Toward Climate and Volcanology

While running the humpback whale livestream, I co-founded a climate change organization called the *2 Degrees Institute* (<https://www.2degreesinstitute.org/>), dedicated to keeping global temperatures from rising more than 2°C above pre-industrial levels and tracking our carbon footprint. One of our key projects was developing interactive graphs that track global greenhouse gas concentrations, temperature changes, and sea levels. Our CO₂-level graph updates daily, using real-time data provided by <https://co2levels.org/#sources>. Our organization frequently



Bromo Tengger Semeru National Park: Sunrise, May 25, 2025. This camera captures the iconic view featured in the 1992 documentary Baraka (still taken from the AfarTV webcam: afar.tv/r/bromo)

received messages incorrectly blaming rising CO₂ emissions on volcanic activity, prompting me to write an article comparing the 1980 eruption of Mount St. Helens to annual U.S. passenger vehicle emissions. This reignited my passion for volcanology.



Iceland: The start of the fifth eruption of the Sundhnúkur eruptions on the Reykjanes Peninsula May 29, 2024 (still taken from the AfarTV webcam: afar.tv/r/iceland)

In March 2021, when volcanic activity resumed on Iceland's Reykjanes Peninsula after 800 years of dormancy, the public was captivated by the ability to watch it unfold live online. This inspired me to explore the idea of setting up a 4k livestream of the eruption. I reached out to Iceland's government-owned news agency and launched a fundraising campaign to make it happen. However, by the time funds were secured, the eruption had ended, and winter had set in. However, in December 2021 we also successfully deployed a 4k camera in Iceland, capturing the fourth eruption of the Sundhnúkur Crater Row on the Reykjanes Peninsula.

Then, in December 2021, a deadly eruption at Semeru Volcano in Indonesia reinforced the potential value of high-resolution 24/7 livestreams of active volcanoes. These cameras could complement seismographs and other monitoring tools, aiding researchers and local communities in understanding volcanic activity and potentially preventing further loss of life. This became my new mission.

The World's First 4K Volcano Livestreams

By April 2023, we achieved a major milestone—launching the world's first 4K 24/7 livestream of an erupting volcano. The Semeru camera, located in a remote area, required over 2 km of fiber optic cable through dense forest and was powered by solar panels and batteries. Its 40× zoom capability allows viewers to witness Strombolian eruptions and rock falls in remarkable detail.

Expanding the Global Network

Momentum continued to build, and in the following months, additional 4K livestreams were launched:

August 2023	Popocatepetl Volcano, Mexico
November 2023	Mayon Volcano, Philippines (the country's first 4K livestream)
May 2024	Bromo Tengger Semeru National Park, Indonesia
May 2024	Fuego Volcano, Guatemala
May 2024	Santa María Volcano, Guatemala
July 2024	A second camera on Popocatepetl, Mexico
September 2024	Merapi Volcano, Indonesia
January 2025	A second camera on Semeru, Indonesia



Fuego: Winter Solstice Explosive Eruption, December 21, 2024 (still taken from the AfarTV webcam: afar.tv/r/fuego)



Santa Maria: Large eruption with pyroclastic flow from the Caliente Vent, January 22, 2025 (still taken from the AfarTV webcam: afar.tv/r/santa_maria)

This last camera (afar.tv/r/semeru) was installed to monitor lahars flowing down streambeds. All of these 4k cameras have a 40× zoom capability and can be remotely controlled. The first 4k livestream of Etna Volcano, Italy, is expected to go online any day now, with even more locations planned for 2025 and beyond.

The Future of 4K Volcano Monitoring

My goal is to create a global network of high-resolution livestreams in front of every active volcano in the world. I believe these cameras can serve as valuable tools for educators, researchers, and the general public to better understand and appreciate these powerful and dangerous natural wonders.



Popocatepetl: Sunset at Popocatepetl, January 14, 2024 (still taken from the AfarTV webcam: afar.tv/r/popocatepetl)

I'm always looking for new locations, collaborations, and feedback to improve and expand this project. If you have ideas, I'd love to hear from you! You can reach me at r@afar.tv.

This project is only just beginning, and I'm excited for what's ahead!

Explore the Livestreams:

1. Popocatépetl	afar.tv/r/popocatepetl
2. Semeru	afar.tv/r/semerua afar.tv/r/semerub Semeru Cam B is located in the pathway of the Lahars and the camera can pan down towards the creek bed when there is nothing to see at the volcano due to clouds.
3. Bromo	afar.tv/r/bromo
4. Merapi	afar.tv/r/merapi
5. Fuego	afar.tv/r/fuego
6. Santiaguito	afar.tv/r/santa_maria
7. Iceland	afar.tv/r/iceland
8. Mayon	afar.tv/r/mayon

Ryan thanks the AfarTV team and officials for their expertise and guidance in getting these cameras installed: Eko Suharianto, Diego Vazquez Garay, Javier Quinto, Zakarias Fridriksson, Jose Cabradilla, PVMBG, and TNBTS.

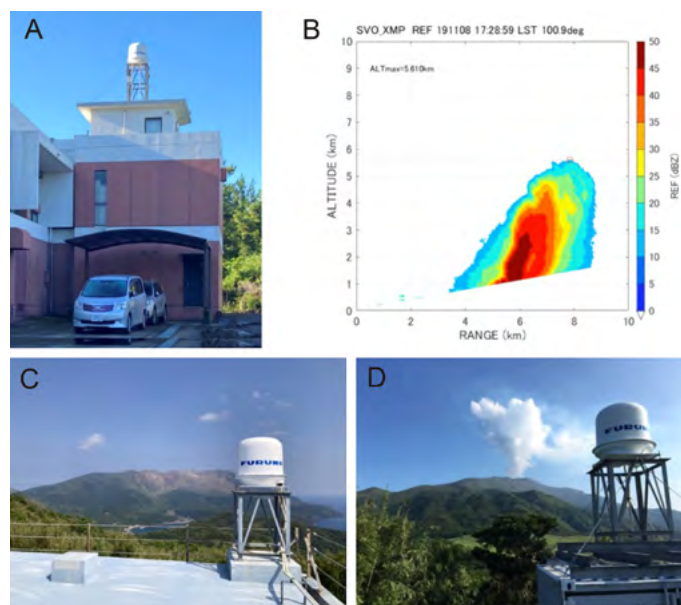
1.4 Observatory News

Monitoring of volcanic plumes in Japan

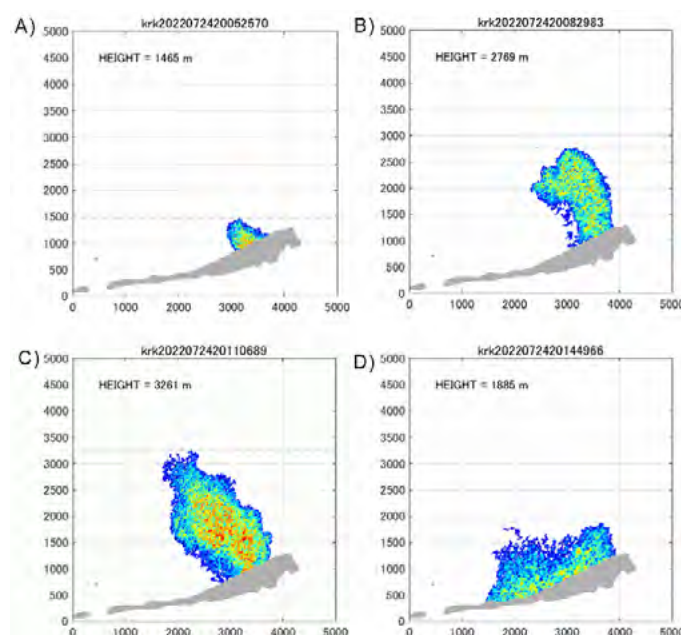
Japan and the surrounding area are part of the subduction zone in the northwestern Pacific Ocean, and hosts numerous active volcanoes with explosive activity, such as Sakurajima Suwanosejima in Ryukyu Arc, and the volcanoes on Izu-Bonin, the Krill islands and Kamchatka Peninsula. Monitoring volcanic plumes in this region is crucial for global air traffic and logistic networks, as well as for the regional air traffic network, the Northwest Pacific region being the leading aviation route connecting Eastern Asia and North America. For monitoring volcanic plumes in Japan and the surrounding areas, the Japan Meteorological Agency (JMA) is designated as the Tokyo Volcanic Ash Advisory Center (VAAC) to monitor and provide information on volcanic plumes for East Asia, the Northwest Pacific, and parts of the Arctic region. The Tokyo VAAC collects eruption information from each local volcano monitoring and warning center within Japan when an eruption occurs within the Japanese territory. The center also collects information from meteorological monitoring stations (MWOs) in the Tokyo VAAC area of responsibility, as well as from volcano observatories in other countries and aircraft. Data from sensors on geostationary and polar-orbiting satellites are also used to track volcanic plumes. The volcanic ash dispersion forecast model developed by the Tokyo VAAC predicts the location and altitude of volcanic ash clouds at 6, 12, and 18 hours using the latest wind direction, wind speed, and other forecast values from the JMA's numerical forecast model.

Ash-fall in Japan's densely populated areas affects the daily lives of the population and impacts economic activities. In particular, Sakurajima volcano is an active volcano that continues to release voluminous volcanic ash, and there are several cities in the vicinity, including Kagoshima City, which has a population of 600 000. Therefore, more precise observation of volcanic plumes is required for such an active volcano. To deliver this information a research group, consisting of volcanologists and meteorologists, at the Sakurajima Volcano Observatory of the Disaster Prevention Research Institute (SVO-DPRI) has developed a monitoring system for the volcanic ash plume using a variety of radars over the past decade in and around Sakurajima.

An X-band multiparameter (MP) radar was at SVO-DPRI at Kyoto University in the summer of 2017. This type of radar was developed initially for observation of cumulonimbus clouds and rainfall, and is currently widely used in volcanic plume observations. The SVO-DPRI radar can be used to estimate the detailed vertical structure of the plume and retrieve plume height, even when the plume enters clouds. The X-band radar uses a radio wave wavelength of about 3cm, and these wavelengths can penetrate meteorological clouds. Sector range–height indicator (RHI) observations involving one-minute scans are used to study the evolution of the vertical structure of the volcanic plume. Using this approach, the detailed vertical structure of many plumes at Sakurajima have been successfully detected. The DPRI has now deployed the same type of radar at several other



A) The X-band MP radar installed at the Sakurajima Volcano Observatory of DPRI, 5.5 km from the Minamidake crater of Sakurajima. B) Radar image of the eruption cloud from the Vulcanian explosion of Minamidake crater at 17:29 (local time) on November 8, 2019. The radar detected the spatial distribution of the ash plume and gave a plume height of 5.6 km asl. C) and D) shows the X-Band MP radar installed in Kuchinoerabujima and Suwanosejima, respectively. Plume observation by radar is particularly effective for these remote island volcanoes



Radar image snapshot of the eruption plume from Sakurajima's Vulcanian explosion of July 24, 2022, detecting: A) oblique ejection of ballistic blocks at the onset of the explosion, B) vertical rise of the ash plume, and ash fall from the ascending plume, C) ash plume at maximum height and, D) drift and dispersal of the ash plume along with ash fall



The shipboard radar installed at the Harutayama observation base ~3 km northwest of the Minamidake crater of Sakurajima. The radar was installed at close range to the crater so as to capture the detailed structure of the plume. The radar is set in 90° rotated position from the normal position in order to observe the detailed vertical structure inside the plume.

active volcanoes, including Satsuma-Iwojima, Kuchinoerabujima, and Suwanosejima in the southern Kyushu area, and successfully detected many ash plumes at these volcanoes.

Observations with higher temporal resolution are needed to detect temporal evolution in the structure of rapidly developing plumes, and the SVO-DPRI research group has installed a shipboard radar for this purpose. The advantages of shipboard radars over conventional meteorological radars are their high temporal and range resolutions. The shipboard radar that we have installed is an X-band radar (wavelength ~3 cm) with a 2 m long slot antenna, a beam width of $1.2^\circ \times 22^\circ$, and a fastest antenna rotation speed of 48 rpm. The antenna is fixed at 90° from the normal position; so that the rotation axis of the antenna is set horizontally to rotate the beam vertically toward the crater. The ship board antenna system can detect the vertical structure of a plume every 1.25 seconds. Plume observations are also being made with solidified shipboard radar, which can measure Doppler velocity. The installed shipboard radar can detect the real-time development process of plume column and evaluate plume height and ascent speed.

The radar analysis results are being organized into a database and published as the Database of Sakurajima Volcanic ASH-fall Distributions (VASH: <https://vash.jp/>), which has a search function. The VASH database contains the results of the analysis of all eruptions in sequence.

With its continuous eruptive activity, Sakurajima is an ideal research field where we can test a variety of technical challenges. The SVO-DPRI research group now aims to create a more advanced volcanic plume observation tool to improve the prediction of plume behavior, by integrating other geophysical observation data such as ground deformation and seismic activity, plus ground-based ash fall observation.

Haruhisa Nakamichi

*Research Center for Volcano Hazards Mitigation,
Disaster Prevention Research Institute, Kyoto University*

Nobuo Geshi

Earth and Planetary Science, Kyushu University

SECTION 2. IAVCEI CONFERENCES, MEETINGS AND WORKSHOPS

2.1 EMSEV2024, Chania, Greece (October 6–9, 2024)

<https://www.emsev-iugg.org/emsev/>



EMSV2024 was held in Chania, Greece between October 6 and 9. Because EMSEV 2020 was canceled due to COVID-19, and EMSEV2022 in Taiwan was held remotely, this was the first face-to-face meeting for EMSEV in six years.

The meeting in Chania was organized by Filippas Vallianatos as committee chair and Nicholas V. Sarlis as vice-chair (both University of Athens). The meeting was attended by 70 people from 16 countries and regions, and there were 44 oral and 29 poster presentations.

A two-day-long training course for Early Career Researchers, entitled “*Advances in Space and Ground base studies of Earthquakes and Volcanoes. New Concepts*”, was also held just before the start of EMSEV2024. Around 10 ECRs participated in this event, and lectures were given on the latest research results and analysis methods in this domain.

EMSEV2024 itself involved a business meeting, at which the location for the 2026 EMSEV General Assembly was discussed. Because 2026 will be the 10th anniversary of the Kumamoto (M7.3) earthquake and the 15th anniversary of the devastating Tohoku (M9.0) Earthquake, it was decided that it will be held in Kumamoto (Japan) in August of 2026. Kumamoto is also very close to Aso and Unzen volcanoes, so we plan to visit Aso volcano as an excursion during the meeting.

More than 20 years have passed since EMSEV was established. Thus, in order to rejuvenate the bureau members, we added six new bureau members and resolved to keep the current bureau in place for the next two years until EMSEV2026 when the bureau membership will be reviewed again.

You can view the minutes of the EMSEV2024 business meeting at the following link.

<https://www.emsev-iugg.org/BM/EMSEV2024BMminutes.pdf>

Being an IUGG inter-association commission (<https://www.iavceivolcano.org/who-are-we/>), we are truly grateful for the support from our parent organizations, including IAVCEI.

EMSEV Chair

Toshiyasu Nagao

Vice Chairs

Valerio Tramutoli, Qinghua Huang

Secretary

Jann-Yenq Liu

IAVCEI liaison

Takeshi Hashimoto

2.2 Meeting of the IAVCEI/IACS Joint Commission on Volcano-Ice Interactions (January 13–15, 2025)

<https://viic.iavceivolcano.org/>

The inaugural online workshop of the IAVCEI/IACS Joint Commission on Volcano-Ice Interactions (VIIC) was held from 13–15 January 2025. Workshop attendees included volcanologists, glaciologists, and those interested in volcano-ice interactions in general. Attendees came from various regions and countries including North and Central America (Canada, USA, Mexico), South America (Chile), and Europe (Iceland, UK, Norway, Spain, Italy). We also had registrations from Japan and Tasmania, but due to the inconvenient timing for these registrants (it being in the middle of their night) a recording of the workshop was very much appreciated. The online event comprised a series of seminars and practical sessions focused on volcano-ice interactions and was run in three (half-day) blocks.

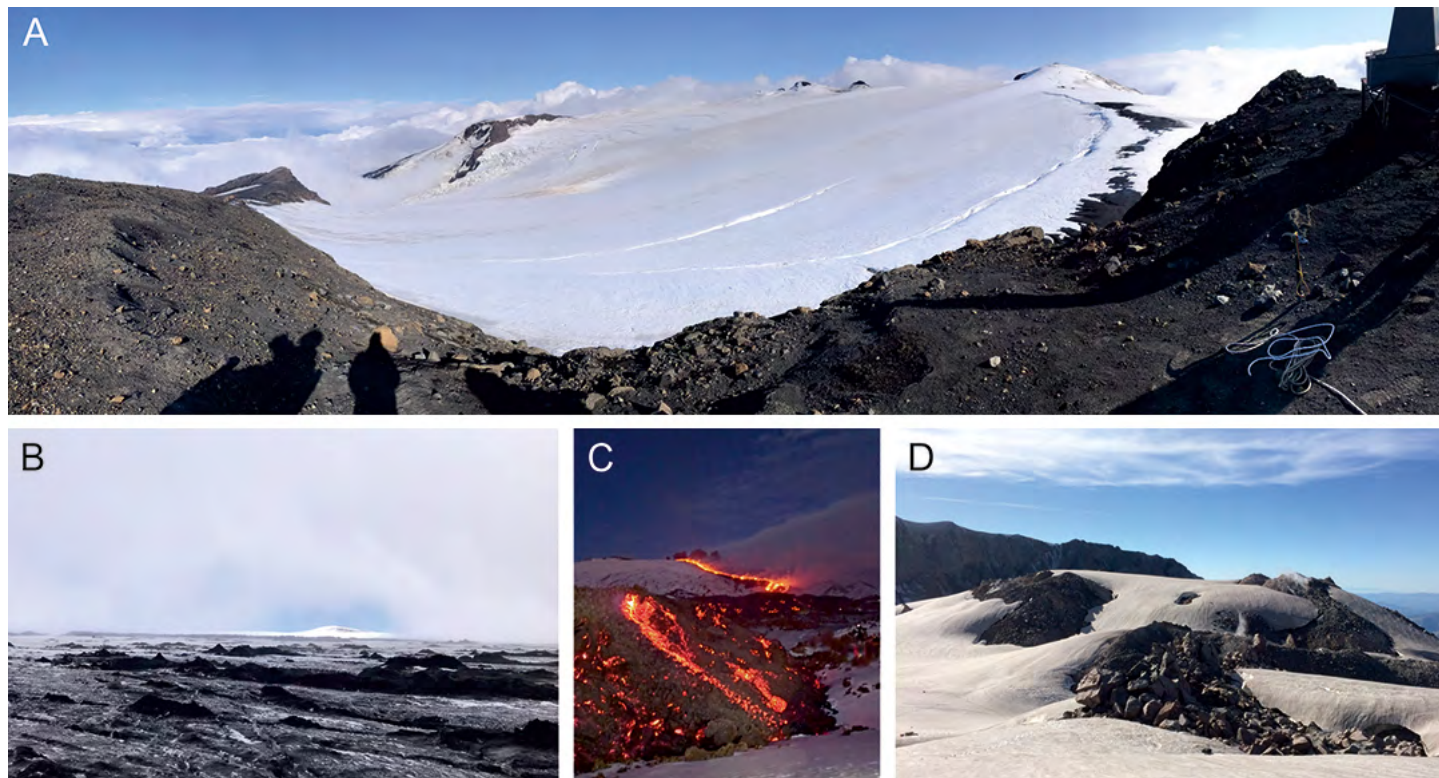
Monday January 13 featured introductory seminars on glaciology, volcanology and volcano-glacier interactions by:

- Dr Iestyn Barr – Manchester Metropolitan University, UK,
- Dr Edgar Zorn – Helmholtz Centre for Geosciences, Potsdam, Germany, and
- Professor Magnús Tumi Gudmundsson – University of Iceland, Reykjavík, Iceland.

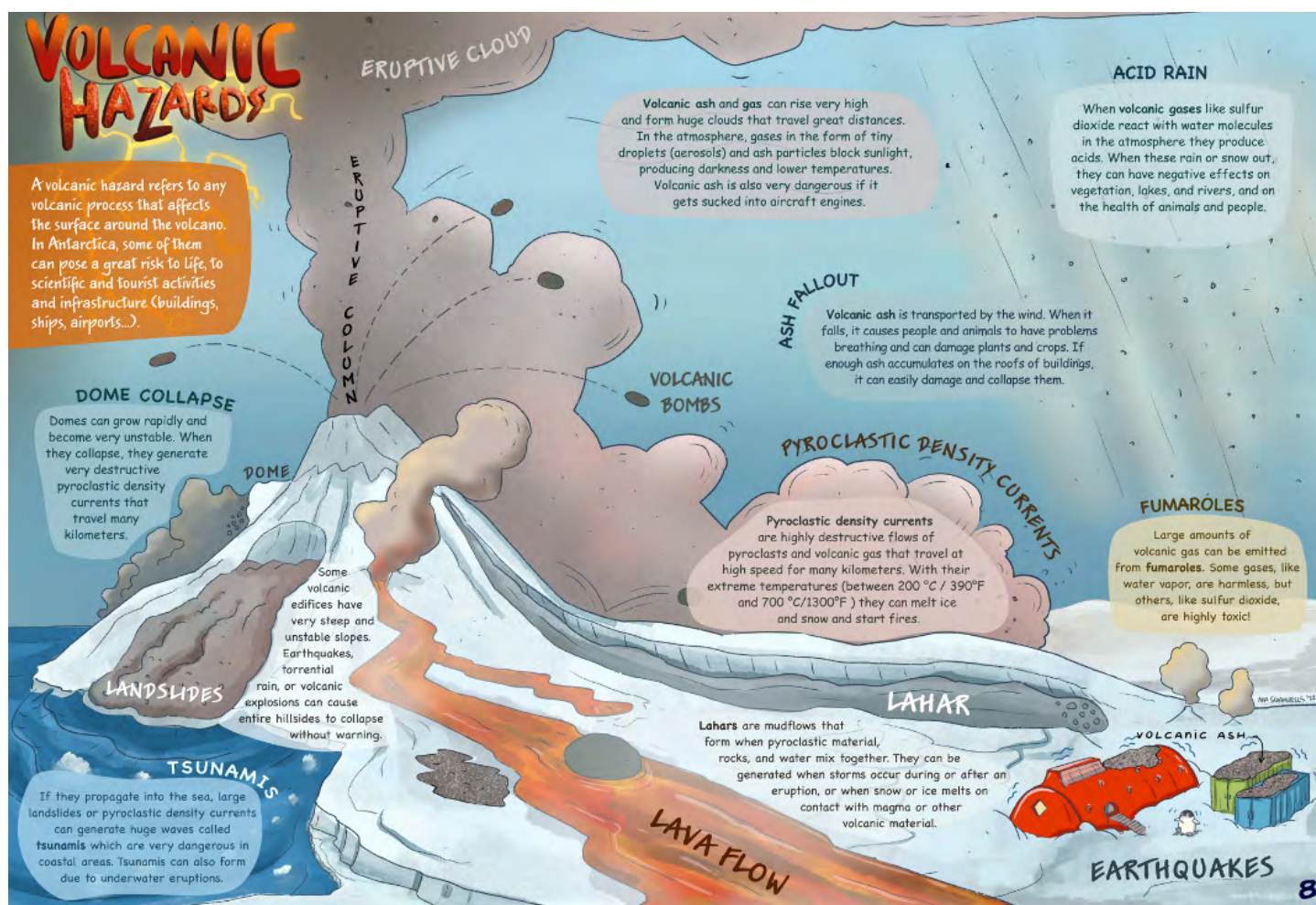
During these talks attendees were introduced to the fundamentals of glaciers and volcanoes before seeing very specific examples of glaciovolcanism from Iceland. This was followed by a practical session on 'Remote sensing of glaciers and volcanoes' led by Dr Maximilian Van Wyk de Vries (University of Cambridge, UK).

For Tuesday January 14 the focus was on glaciovolcanism in the geological record. This featured the following presentations:

- Dr Rosie Cole (University of Iceland, Reykjavík, Iceland) who spoke about '*Geological indicators of past glaciovolcanism*' giving several examples from Iceland and New Zealand.
- Professor Ben Edwards (Dickinson College, Carlisle, PA, USA) who explained how to use glaciovolcanic structures and edifices to reconstruct past glaciers, and why volcanoes and glaciovolcanism are critical in understanding past glacial events.
- Dr Kat Scanlon (University of Maryland, MD, USA) introduced the audience to extraterrestrial volcano-ice interactions while talking about '*Glaciovolcanic structures on Mars*'.



Recent examples of glaciovolcanism. (A) The summit caldera of Eyjafjallajökull in August 2024—more than 14 years after being heavily impacted by an eruption between April and May 2010. (B) The western flanks of the Eyjafjallajökull ice cap in August 2024. A significant amount of 2010 tephra is still visible. (C) Lava-snow interactions at Mount Etna in February 2025. (D) The 2004-2008 lava dome in the crater of Mount St. Helens surrounded by a recently formed glacier (Crater Glacier). Photos A, B, D: Linda Sobolewski; Photo C: Catherine Lemerrier



Glaciated volcanoes as multihazard systems as presented by Maximillian Van Wyk de Vries. From: *Antarctic Volcanism: Explore the remotest volcanoes of the planet!* Outreach book prepared by Geyer et al. (2023).

The audience also viewed several examples of glaciovolcanism on Earth.

The second day concluded with a practical session giving an overview of the 'Polar Rock Repository' led by Dr Erica Maletic of the Byrd Polar and Climate Research Center (Ohio State University, Ohio, UAS). The repository contains over 60 000 rock samples from Antarctica, the southern oceans, along with small collections from South America, Africa, and Australia and also includes a collection of field notes, maps, thin sections, as well as an extensive media archive. More information about the Polar Rock Repository can be found here:

<https://prrr.osu.edu/>

The final day of the workshop focused on present-day glaciovolcanism, with presentations from:

- Professor Matteo Spagnolo of the University of Aberdeen (UK) who spoke about 'Present-day volcano-glacier interactions and volcanic impacts on glaciers', and presented examples of how volcanoes globally affect glacier elevations while discussing how glaciovolcanism can be assessed on a global scale.
- Dr Maximillian Van Wyk de Vries then continued the day by talking about 'Glaciovolcanic hazards' introducing glaciated volcanoes as multihazard systems, and presenting a case study from Cayambe volcano, Ecuador.

- The last talk of the day was given by Professor Freysteinn Sigmundsson (University of Iceland, Reykjavík, Iceland) who spoke about the 'Influence of glacier retreat on volcanic activity' and who discussed climate effects on volcanism and the impact of loading and unloading from ice mass variations.

Access to recordings of all sessions is available on request. Please email Dr Linda Sobolewski (lindas@hi.is).

Workshop organizers:

Dr Linda Sobolewski

University of Iceland, Reykjavík, Iceland

Dr Maximillian Van Wyk de Vries

University of Cambridge, UK

Tryggvi Unnsteinsson

University of Aberdeen, UK

Dr Iestyn Barr

Manchester Metropolitan University, UK

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SECTION 3. IAVCEI – DOWN TO BUSINESS

3.1 IAVCEI Commission on Tephrochronology Call for Nominations for Executive

<https://cot.iavceivolcano.org/>

Elections are coming up for the IAVCEI Commission on Tephrochronology (COT) executive and we are looking for people interested in running. Positions are:

- Chair,
- Officer of Communications,
- Officer of Membership,
- Officer of Meetings and
- Early Career Researcher Representative.

Descriptions of each position and what they entail are available on our website (<https://cot.iavceivolcano.org/>).

If you are interested (or have any questions), please send nominations (or questions) and a short biography and explanation as to why you would like the job to:

Britta Jensen (chair@cot.iavceivolcano.org)

Richard Streeter (membership@cot.iavceivolcano.org)

Paul Albert (communications@cot.iavceivolcano.org).

Self-nominations are encouraged, nominating someone without their knowledge is not!

Timeline:

- Nominations open April 1 and will remain open until April 30.
- Voting opens May 12 and continue until May 30.

Once nominations have been gathered, biographies will be posted online, and voting will open around May 12. More information will be available closer to the date.

Again, if you are interested, but would like more information before committing, contact us.

3.2 COT search for host for the next Tephra Conference (2028)

<https://cot.iavceivolcano.org/>

The IAVCEI Commission on Tephrochronology (COT) is also looking for anyone who might be interested in hosting the next Tephra Conference, tentatively scheduled for 2028. The plan is follow up on our successful meeting in 2024 in Catania, Sicily, with the Commission on Tephra Hazard Modelling (you can read about that in the [IAVCEI newsletter vol 4 2024, p 20](#)). We expect the hosts to have a local organizing committee and lead the conference organization, but any host will be fully supported by the COT executive (and the related supports at IAVCEI), with the Officer of Meetings acting as liaison. If you are interested but would like more information before submitting

a formal nomination, please reach out to us. *We are also open to partnering again with another Commission if there is interest.*

Britta Jensen

chair@cot.iavceivolcano.org

Richard Streeter

membership@cot.iavceivolcano.org

Paul Albert

communications@cot.iavceivolcano.org



3.3 Events and Meetings 2024–2026

IAVCEI events 2024

Cities on Volcanoes 12

February 11–16, 2024, Antigua, Guatemala

[commission Cities and Volcanoes]

<https://citiesonvolcanoes.wordpress.com/>

<https://congress.iavceivolcano.org>

Volcandpark 2024

May 20–24, 2024, Jičín, Czech Republic

[supported by commission on Volcanic Geoheritage and Protected Landscapes]

www.volcandpark2024.geocon.eu

1st international workshop on volcanic and igneous plumbing systems

June 18–20, 2024, Liverpool, UK

[commission Volcanic and Igneous Plumbing System]

<https://vipscommission.org/>

<https://vipscommission.org/event/1st-international-conference/>

2nd edition of the Carpathian Fluid Geochemistry Summer School

July 15–21, 2024, Eastern Carpathians, Romania

[commissions Chemistry of Volcanic Gases; Volcanic Lakes]

<https://ccvg.iavceivolcano.org/>; <https://iavcei-cvl.org/>

<https://forms.gle/PzSQxAQyDMnf5biYA>

10th International Conference on Tephra Studies

September 8–15, 2024, Catania, Italy

[commissions Tephrochronology; Tephra Hazard Modelling]

<https://cot.iavceivolcano.org/>; <https://thm.iavceivolcano.org/>

See Below

IASPEI/IAVCEI Commission on Volcano Seismology and Acoustic annual meeting

September 16–21, 2024, El Paso, Canary Islands

[IASPEI/IAVCEI Commission]

<https://www.ign.es/web/ign/portal/vlc-congreso-la-palma-2024>

6th Conference Alfred Rittmann

September 18–20, 2024, Catania, Italy

[IAVCEI-sponsored]

<https://www.conferenzarittmann.it>

9th school on Convective and Volcanic Clouds (CVC) detecting, monitoring and odelling

October 5–13, 2024, Nicolosi, Italy

[IAVCEI-sponsored]

<http://www.cvctrainingschool.org/school/>

EMSEV 2024: Workshop on electromagnetic studies of earthquakes and volcanoes

October 6–9, 2024, Chania, Crete, Greece

[IUGG Inter-Association IAGA-IASPEI-IAVCEI]

<https://www.emsev2024.org>

1st International Monogenetic Conference

November 4–8, 2024, San Pedro de Atacama, Chile

[commission Monogenetic Volcanism]

<https://cmv.iavceivolcano.org/>

<https://cmv.iavceivolcano.org/international-monogenetic-conference-2024/>

IAVCEI events 2025

7th Volcano Geology workshop

January 11–17, 2025, Colombia

[Volcano Geology commission]:

<https://volcanogeology.iavceivolcano.org>

Field Workshop in Iceland (in planning)

May 18–24, 2025

[Volcano-Ice Interactions Commission]

Working on Active Volcanoes: Learning the Tools of Modern Volcanology

4th International Summer School

June 8–16, 2025, Lipari, Vulcano and Stromboli

[IAVCEI-Endorsed Event]

[WOAV I-SITE Web Link](#)

IAVCEI Scientific Assembly

June 29 – July 4, 2025, Geneva, Switzerland

[Scientific Assembly]

<https://sa2025.iavceivolcano.org/>

Workshop of the ‘Tephra Hazard Modelling’ commission (In planning)

Before or after the 2025 IAVCEI Scientific Assembly, Catania, Sicily, Italy

[commission Tephra Hazard Modelling]:

LASI VII workshop on “The physical geology of subvolcanic systems: laccoliths, sills & dykes”

September 9–11, 2025, Hveragerði, Iceland

[supported by Volcanic and Igneous Plumbing Systems Commission]

<https://lasi7.hi.is/>

IAVCEI events 2026

12th Workshop on Volcanic Lakes

March 9–17, 2026, Luzon, Philippines

[commission on Volcanic Lakes]

<https://iavcei-cvl.org/>

3.4 Goldschmidt 2025 (Prague, Czech Republic)

The upcoming Goldschmidt conference will be held in Prague (Czech Republic) during 6 to 11 July, 2025. Remote access will also be possible, although there will not be any live remote participation. All details can be found on the conference website:

<https://conf.goldschmidt.info/goldschmidt/2025/meetingapp.cgi/Home/0>

IAVCEI members can benefit from member registration rates and, given the proximity of Prague to Geneva, could be a nice stay over for those attending the Scientific Assembly in Geneva which ends on 4 July.



3.5 Bulletin of Volcanology: Executive Editor's Column

The Bulletin of Volcanology, as the official journal of IAVCEI, continues to thrive thanks to the excellent contributions from the community. Two special collections are taking excellent shape and beginning to publish their first papers, these being:

- [Mauna Loa 2022 – Unrest, Eruption, and Outreach at the World's Largest Volcano](#)
- [Volcanism in the Kolumbo Volcanic Field, South Aegean: reconstruction of the past – hazard and risk assessment for the future.](#)

Watch this space for further developments! If you would like to propose a special collection, just [drop me a line](#).

We have a very special set of [associate editors](#) at the journal, who work extremely hard to keep standards high and shepherd your papers over the finishing line. I am very grateful to their hard work and dedication to the journal. If you're interested

in joining the team, please get in touch. We are always interested in bringing new colleagues on board.

We would like to remind authors of the option for open access publication in the Bulletin of Volcanology. Transformative agreements with Springer to cover the article processing charge (APC) exist now for many countries and institutions globally; corresponding authors may qualify for open access on that basis, so do check among your authors. Note that articles may have more than one corresponding author.

If you are in any doubt about whether agreements exist for your co-authors check the [website](#).

Marie Edmonds

Executive Editor, Bulletin of Volcanology

<https://link.springer.com/journal/445>

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SECTION 4. NEWS FROM MEMBERS

4.1 Remembering Olivier Jaquet

“Uh là là!”, rather than the most classical French “Oh là là!”, was the funny trademark of Olivier Jaquet’s moments of surprise. And a very sad surprise it was for us all ... the news of his sudden death on 16 February 2025, still so difficult to accept. He leaves his parents Philippe and Ruth, his brother Pascal, his sister-in-law Catherine, his nephews Valentin and Clément and many friends in Switzerland and abroad.



Olivier, born on 17 January 1960 in Lausanne (Switzerland), studied geology at Lausanne University, took a postgraduate degree in Geostatistics at the Paris School of Mines and gained a Ph.D. in stochastic modelling of geological data at Lausanne University. He worked for Colenco Power Engineering Ltd in Baden, Switzerland from 1989 to 2008, and then established his own company in Basel (Switzerland): In2Earth Modelling AG. Olivier was involved in national projects related to the storage of radioactive waste in geological environments, in environmental projects and oil exploration in France, Switzerland, Germany, Sweden and Japan, including development of geostatistical models for characterising karst-dictated geometries of oil fields. In the 1990's Olivier, while still working in the private sector, was a senior lecturer in geostatistics at in the Earth Sciences Department at Zurich (ETH) and at Neuchâtel University (with the Hydrogeology Centre). At the same time, he held the post of the Swiss representative of the International Association for Mathematical Geology.



Olivier (left) in the hut of Karymsky caldera, Kamchatka 1998

Olivier was the kindest person, often visually looking serious but suddenly making you laugh with a great joke or comment. We immediately found a good feeling, and we met again and again at our volcano seismology workshops (Working Group of the European Seismological Commission on seismic phenomena associated with volcanic activity; IASPEI/IAVCEI Joint Commission on Volcano Seismology & Acoustics), to which Olivier had become one of the most regular participants. As a geo-statistician he was definitely an outlier in the group, as was I. We ended up collaborating for several years, on developing stochastic methods for forecasting volcanic activity using multi-parametric geophysical data sets, writing together many papers, chapter books and joint presentations, e.g. within the EU-project MULTIMO (Multi-Disciplinary Monitoring, Modelling and Forecasting of Volcanic Hazard) in 2001-2004. The application of these methods has enabled forecasts (with uncertainty) of volcanic activity at short term (Stromboli, Soufrière Hills, Teide and Etna) as well as at long term for the region of Ostefel in Germany. Olivier then continued to apply his geostatistical methods to characterize aquifers and to estimate the volcanic and tectonic hazards of potential nuclear waste deposits in Japan.



Olivier (at the back, fourth from the left) at IASPEI/IAVCEI Commission on Volcano Seismology workshop, La Soufrière volcano, Guadeloupe, France, 2005



Olivier (middle row, fourth from the left) at ESC Volcano seismology workshop, Pantelleria, Italy, 2003

In volcanology, Olivier's work has been a significant leap forward in the probabilistic methodologies that allow forecasting volcanic activity over different timescales. He worked both in the space and in the time domain, underlying the importance of the concept, derived from the variogram, of the memory of an experimental time series produced by a volcanic dynamical system. This is the ability of the time series to retain information from a given amount of time in the past, which can in turn offer the possibility to forecast its future behaviour at a comparable timescale. A time series that does not remember its past long enough cannot forecast its future long enough.



Olivier (rightmost) on the top of Lascar volcano, Chile, 2008



Olivier at Tobermury, Mull Island, Scotland, UK, 2005

His talks were entertaining. He would almost always use the French "parce que" instead of the English "because" and the very awaited last slide of his presentations was always a nice and funny drawing produced on his inputs by his brother Pascal. Such drawings accompanied also his regular wishes for the new year, the last one on 26 January 2025, which you can see here together with the one of 2022 (left and right, respectively).



During dinners, and after-dinner, during our workshops Olivier showed his funniest moments. I remember him playing with his laser pointer in a bar in Santorini (until they almost threw us out) or, more dangerously, at a quite delicate border between two countries. This is how I want to remember him.

Rest in peace, Olivier.

Roberto Carniel



Olivier (second from the left) at the Cities on Volcanoes meeting in Kagoshima, Japan, 2007



Olivier (rightmost) in Eilat, Israel, during the final MULTIMO workshop, 2004

I collaborated with Olivier in two projects. One was MULTIMO and the other was called TOPAZ which involved a team of international researchers working with the Radioactive Waste Management Organisation of Japan (NUMO) in the period 2001–2011. TOPAZ concerned long term hazard and risk of tectonic hazards, including volcanism of course to geological waste repositories in Japan. He brought his expertise of geostatistics into both projects and soon contributed significantly using his deep knowledge of statistics to advance forecasting of volcanic systems and hazardous events. We collaborated on investigating the time series of volcanic events and here he contributed by showing that volcanic systems have memory, demonstrated in particular by a study of explosions at the Soufrière Hills Monserrat. I remember Oliver as a kind, unassuming and sociable personality. He had a penetrating intellect that enabled him to pioneer understanding of system memory in dynamic volcanic systems.

Steve Sparks



Olivier (leftmost) at IASPEI/IAVCEI Commission on Volcano Seismology workshop, Iceland 2007

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4.2 The ALVO-IAVCEI Internship program

The ALVO-IAVCEI Internship Program was established in 2018 to provide Latin American university students an opportunity to conduct research for one or two months at a Latin American volcano observatory in order to strengthen links between observatories and the academia. The students are chosen by ALVO after a rigorous selection process that assesses their academic achievements, community involvement, and interest in volcanology.

As of 2025, six students have participated. The last two were Sergio Aguilar (from México) and Dayana Espinoza (from

Ecuador), who respectively visited the MARN (El Salvador) and INETER (Nicaragua) volcano observatories. You will find out more about their experiences in the reports below. I hope you enjoy them!

Stay tuned about this and similar opportunities at the ALVO website: <https://oficialalvo.org/publicaciones-sobre-alvo> and social channels: <https://www.facebook.com/OficialALVO/>.

Daniel Bertin

4.3 ALVO-IAVCEI Internship (El Salvador): Sergio Aguilar

Volcano monitoring has been a passion of mine that has continuously grown throughout my academic and professional career. The ALVO-IAVCEI internship at the Ministry of Environment and Natural Resources of El Salvador (MARN) was an incredibly enriching experience that allowed me to gain new insights into the volcanic monitoring dynamics in El Salvador and how different disciplines can be integrated to understand natural phenomena such as volcanoes, earthquakes, and climatology.

El Salvador is a culturally fascinating country that shares some similarities with my home country, Mexico... yet also possessing unique and authentic characteristics. The people are exceptionally friendly and during my stay I was able to form long-lasting links. The combination of volcanoes, forests, the sea, and coffee makes El Salvador a truly special place. Santa Ana volcano, with its turquoise-blue crater lake and stratified deposits from various eruptive events is a remarkable natural wonder. Meanwhile, the San Miguel volcano exudes an air of mystery, showcasing the majesty of this "lord volcano."

In recent years, I have been involved in geophysical monitoring projects—focused particularly on seismology and geodesy—around volcanoes and seismically active regions. However, other techniques are also available for understanding volcanic phenomena in which I had no prior experience. Fortunately, during this internship, I had the opportunity to learn and participate in various activities, such as fluid analysis (gases and water) from sources with volcanic potential in different regions of the country. This work was carried out in collaboration with Chilean researchers, professors from the University of El Salvador, and members of El Salvador's Ministerio de Medio



Sergio making gas measurements at San Miguel volcano, El Salvador

Ambiente y Recursos Naturales (MARN, <https://www.ambiente.gob.sv/>). It was a highly valuable academic experience and allowed me to gain foundational knowledge to understand the state and evolution of volcanoes.

Undoubtedly, the ALVO-IAVCEI internship broadened my perspective in the field of volcanology and reinforced my desire to carry-on specializing in this area, with the long-term goal of contributing new knowledge to my country. I am deeply grateful for this opportunity, and I encourage Latin American students to apply and take themselves part in these experiences, which open doors to new and exciting career opportunities.

Sergio Aguilar

Michoacana University of San Nicolás de Hidalgo (Mexico)

4.4 ALVO-IAVCEI Internship (Nicaragua): Dayana Espinoza

The ALVO-IAVCEI internship program offered me an exciting opportunity at the Instituto Nicaragüense de Estudios Territoriales (INETER) in Nicaragua. During my stay, I had the chance to keep myself involved in a number of activities related to volcano monitoring, geophysics and risk management, in collaboration with local specialists.



Instrument deployment at Masaya volcano, Nicaragua

On the first day I was warmly welcomed by the Geology and Geophysics Directorate staff. During the first week, I got to know the applied geology, volcanology and seismology of the area, all of which allowed me to understand the importance of each discipline in contributing to volcano monitoring, the study of geological phenomena, and land use planning.

Fieldwork was one of the most enriching experiences during my stay. During the second week, we carried out measurement campaign for a diffuse CO₂ soil degassing at Mombacho volcano and its surroundings. Then, I participated in a geoheritage fair on Omatepe Island that lasted for several days. At the fair, national and international specialists discussed the importance of geology, how it can be integrated with local knowledge, and the real value of geoeducation in contributing to territory and nature conservation.

Activities carried out during the field campaigns included MultiGas and MobileDOAS measurements at Comalito and Santiago at Masaya, as well as at Telica, Cerro Negro and Mochambo volcanoes. I also helped in processing seismic data, carrying out tsunami simulations, and retrieving earthquake focal mechanisms. This all allowed me to strengthen my knowledge about volcano seismicity and early warning protocols. Finally, I participated in the development and deployment of seismic stations.

As well as training, my time in Nicaragua helped me gain new knowledge about the impact of volcanic eruptions on local communities and the importance of continuous instrumental monitoring in mitigating volcanic risks. This experience helped me refine my research interests and showed me how I can contribute to an applied science-approach back in my own country of Ecuador.

I am deeply grateful to all at INETER for their support, and to ALVO and IAVCEI for making this opportunity possible.

Dayana Espinoza

Yachay Tech University (Ecuador)

