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IAVCEI

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.

Remembering Minard Hall

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Antisana, Ecuador

REMEMBERING MINARD HALL

Minard L. Hall: Pioneer of Volcanology in Latin America

With great sadness, we report the passing of our mentor, colleague, and friend, Minard L. (Pete) Hall, on December 24, 2023, in Quito.

Minard L. Hall was born in 1938 in San Francisco, California. He earned his BA and MSc degrees at the University of California at Berkeley and then his PhD at Case Western Reserve University in Ohio. During his training, he acquired a great passion for field geology, especially related to igneous petrology and volcanology studies. After completing his PhD and pursuing his deep interest in Latin American culture, Pete traveled to South America in the early 1970s. He first settled in Colombia between 1971 and 1972, where he taught at the Universidad Nacional de Colombia in Bogotá. Afterward, he was offered a position at the recently founded Geology Department of the Escuela Politécnica Nacional (EPN) in Quito, where he was appointed full-time professor of geology. As a result of his early research, in 1977, he published an overview of Ecuador´s Quaternary volcanism, "*El Volcanismo en el Ecuador*", which is unsurpassed as one of the best descriptions of recent volcanism in the country and is still an indispensable reference for any researcher interested in Ecuadorian volcanism[1]. During his time at the Geology Department of the EPN, Pete taught the volcanology and igneous petrology undergraduate courses and inspired a new generation of students in volcanology and earthquake research. During these early years, Pete came to appreciate the large number of potentially active and dangerous volcanoes threatening Ecuadorian populations. Together with his student Hugo Yepes, they founded the Instituto Geofísico (IG-EPN) in 1983. The IG-EPN was the country's first Ecuadorian institute devoted to studying earthquakes and volcanoes, and one of the first in Latin America. The IG-EPN is strongly operating today, having just celebrated its 40th anniversary (see IAVCEI newsletter December 2023, No. 4). Pete was the IG-EPN´s first director between 1983 and 1997.

Pete guided many students through their geologic career at the Geology Department of the EPN and encouraged them to travel abroad and pursue further higher education. His legacy includes more than 30 students whom he influenced and who have their professional occupations in Earth Sciences. In addition to his mentorship, Pete was an enthusiastic field geologist interested in all aspects of the natural sciences. He was talented at reading the morphological information recorded in the landscape and understanding the petrological information recorded in rocks and minerals. His ability to incorporate information from different disciplines, such as geology and geophysics, allowed him to unravel the functioning of magmatic and volcanic systems. His proactivity, enthusiasm, and dedication created a robust foundational pillar for developing the IG-EPN and subsequent outstanding achievements in volcano monitoring and volcanological research in Ecuador.

Pete standing near an old fault at the rim of Chacana's caldera

Pete warmly welcomed and promoted international collaboration in research and monitoring activities of the IG-EPN, which optimized resources and allowed many young Ecuadorian researchers to learn new techniques, visit foreign laboratories, and bring new knowledge to Ecuador. International colleagues have consistently improved the hazard assessment and real-time monitoring activities of IG-EPN, specifically those from the USGS-VDAP, IRD of France, and JICA of Japan.

During his career, Pete received numerous national and international awards and honors, especially the Sasakawa Award in 1992, bestowed on behalf of the IG-EPN. He was also a member of several scientific organizations, such as IAVCEI, AGU, GSA, and the Charles Darwin Foundation for preserving the Galápagos Islands. In 2004, he received a prestigious award from the Ecuadorian government for his work on volcanic hazard science in Ecuador.

1 https://books.google.fr/books/about/El_volcanismo_en_el_Ecuador.html?hl=es&id=GwYKAAAAMAAJ&redir_esc=y

Pete will be remembered for his commitment to the advancement of volcanology in Ecuador and Latin America and his genuine interest in the development and success of the IG-EPN. He is survived by his son Jonathan, who was born in the early 1970s in Bogota and now lives in Quito, and by his wife, the well-known and equally enthusiastic volcanologist Patricia A. Mothes, with whom he shared a passion for the landscapes and cultures of Ecuador. Pete and Patty worked together on field and laboratory research and had many field adventures. During their 30 years of marriage, they co-published more than 40 journal articles, maps and posters.

Their principal research was focused on Cotopaxi, Quilotoa, Antisana, Tungurahua, Chacana, and Galápagos volcanoes. However, there were also new areas that they explored and mapped. Their fieldwork identified more than 10 new volcanoes in the Cordillera Real, such as the Cosanga volcano cluster at the eastern foot of the Andes and the Chacana caldera.

Pablo Samaniego, Mario Ruiz, Daniel Andrade, Silvana Hidalgo, Patricia Mothes and Jennifer Garrison
Quito, 7 March, 2024

Pete and Patty at Chacana caldera during field work

Antisana, Ecuador

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

1.1 IAVCEI Commissions and Network Updates

Electro-magnetic Studies of Earthquakes and Volcanoes (EMSEV): An inter-association working group
EMSEV website: https://www.emsev-iugg.org/emsev/

Introduction
EMSEV (*Electromagnetic Studies of Earthquakes and Volcanoes*) is an Inter-Association Working Group of the IUGG, IAGA, IASPEI, and IAVCEI. Together, these four associations fully support EMSEV and promote EMSEV activities.

The proposal to an Inter-Association Working Group on Electromagnetic Studies of Earthquakes and Volcanoes was made at the Birmingham IUGG General Assembly 1999, and was approved by IUGG Executive Committee in July 2001. Since its inception, EMSEV has been continuously active in the investigation of earthquakes and active volcanoes, and has worked to better understand physical and dynamic processes with the objectives of:

1. Evaluation and endorsement of advanced studies in the electromagnetic field through international cooperation, conferences, and workshops;
2. Integration of electromagnetic methods together with other geophysical techniques to identify physical processes at all scales before, during, and after earthquakes and volcanic eruptions;
3. Organization and management of international and regional workshops, and
4. Participation in educational and field programs relating to observed results and the reduction of the earthquake and volcanic hazards.

Based on the expertise of a worldwide community of more than 350 researchers and students, EMSEV sustains innovative research and scientific findings, mainly based on studies of electromagnetism (EM) but also integrating with other geophysical data, to describe, monitor, analyse, and model fault systems and volcanoes.

Administration
In 2018, the structure of the EMSEV changed significantly. The current EMSEV structure is now as follows: 1) Bureau, 2) Country Liaison Members, 3) EMSEV members, and 4) EMSEV Collaborators.

EMSEV bureau: Since March 2019, Toshiyasu Nagao (Japan) has been the EMSEV Chair, Valerio Tramutoli (Italy) the Vice-Chairperson, and Jann-Yeng Liu (Taiwan) Secretary. The bureau includes three association liaison members:

- IAVCEI: Takeshi Hashimoto (Hokkaido University, Japan),
- IASPEI: Qinghua Huang from Beijing University (China),
- IAGA: Jann-Yeng Liu (National Central University, Taiwan).

Currently, the *EMSEV bureau contains 15 members from 10 countries.* Detailed member lists are available on https://www.emsev-iugg.org/emsev/profile.html and *Country liaison members,* **EMSEV Members** and **EMSEV Collaborators** can be found at https://www.emsev-iugg.org/emsev/.

Activities
In 2023, the IUGG general meeting was organized in Berlin where two EMSEV sessions were held, and sessions related to EMSEV were also organized at IAVCEI, EGU, JpGU, IWEP7, AOGS, and AGU meetings.

IUGG General Assembly (11-20 July 2023, Berlin, Germany)
Since the 2019 IUGG General Assembly in Montreal, many international conferences have been held remotely due to the spread of COVID-19. The IUGG Berlin General Assembly was organized as an on-site meeting. At the Berlin meeting, EMSEV organized two sessions:

- JA07 Interdisciplinary Observations of Pre-Earthquake Processes: The Concept of Lithosphere- Atmosphere-Ionosphere Coupling (IAGA, IASPEI (EMSEV).
  Convener(s): M. Bagiya (India, IAGA), D. Ouzounov (USA, IASPEI/EMSEV), S. Pulinets (Russia, IASPEI/EMSEV), K. Hattori (Japan, IASPEI/EMSEV), P. Taylor (USA, IASPEI/EMSEV).

Some convenors of, and contributors to, JA07 and JA08.

- JA08 Ground and Satellite Electromagnetic Observations Related to Earthquakes, Tsunamis and Volcanic Activity (IAGA, IASPEI (EMSEV), IAVCEI), Convener(s): Ramesh Singh (India/USA, EMSEV), K. Yamazaki (Japan, IAGA), Q. Huang (China, IASPEI/EMSEV), T. Hashimoto (Japan, IAVCEI/EMSEV).

During IUGG, EMSEV also held a business meeting to discuss, among other items future bureau membership rejuvenation and additions.

Other meetings (2023–2024)

- Cities on Volcanoes, January 29 – February 3, 2023, Rotorua (New Zealand)
  Monitoring and exploration of hydrothermal systems aiming at forecasting "wet" eruptions by electromagnetics and non-conventional techniques
  Convener(s): T. Hashimoto, W. Kanda, M. Uyeshima, H. Ichihara, C. Miller, W. Heise.

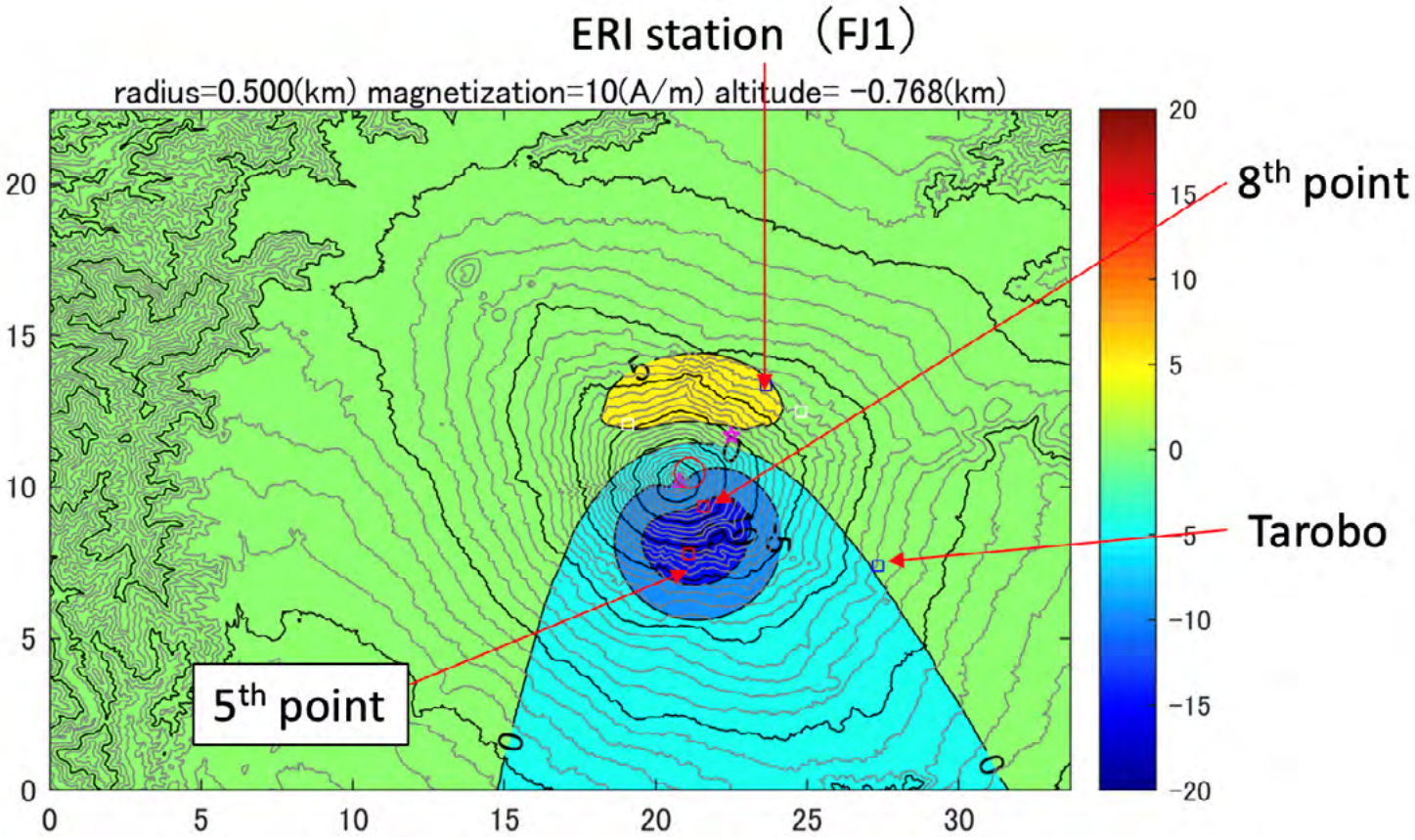
  For this EMSEV supported the registration fee of Dr. P. K. Alanis (PHIVOLCS). Dr. Alanis presented "*Electromagnetic studies at Taal Volcano before and after the 2020 eruption*". This talk was the final report of the Taal Volcano Project, Philippines, which has been conducted over many years by EMSEV.

- EGU, 23–28 April 2023, Vienna (Austria)
  NH4.1 Short-term Earthquakes Forecast (StEF) and multi-parametric time-Dependent Assessment of Seismic Hazard (t-DASH)
  Co-organized by EMRP1/GI6/SM3, co-sponsored by JpGU and EMSEV
  Convener(s): V. Tramutoli, P. F. Biagi, C. Filizzola, N. Genzano, I. A. Moldovan.

- JpGU, 21–26 May 2023, Chiba (Japan)
  M-IS04 Interdisciplinary studies on pre-earthquake processes
  Convener(s): K. Hattori, J. Y. Liu, D. Ouzounov, Q. Huang.

- IWEP7, 24–25 May 2023, Chiba (Japan)
  7th International Workshop on Earthquake Preparation Process, Observation, Validation, and Modelling
  Organizing Committee Chair: K. Hattori, Secretary: R. Song, P. Han.
  Program Committee: J. Y. Liu, D. Ouzounov, Q. Huang, X. Shen, T. Nagao.

- AOGS, 30 July-04 August 2023, Singapore
  Session: *Ionospheric Weather Induced by Solar and Terrestrial Activities*
  Convener(s): J. Y. Liu, K. Hattori, D. Ouzounov, X. Shen, V. Tramutoli.



Model calculations revealed that the area near the fifth station is suitable for capturing the total magnetic field change due to magma ascent. The model assumes a spherical hot region (magma pool) with a radius of 500 m ascending towards the summit. The figure shows the geomagnetic variation when the center of the sphere reaches -0.768 km above sea level. Geomagnetic stations are in operation at FJ1 and Tarobo.

- AGU, 11–15 December 2023, San Francisco (USA)
  NH33E – Integrated Studies of Geospheres Interaction Associated with Pre-earthquake Processes, Geohazards, and Space Weather, Revealed with Ground and Spaceborne Multi-instrument Observations
  Convener(s): D. Ouzounov, J. Y. Liu, L. Conti.

Joint international activities

Taal, Philippines: In 2020, the Taal volcano in the Philippines experienced a catastrophic eruption. At the current time, researchers are active on the island, but with extreme caution, and PHIVOLCS is rebuilding electromagnetic observation stations in collaboration with EMSEV.

Mt. Fuji, Japan: In 2023, model calculations were conducted for Mt. Fuji. As a result, we concluded that it would be more effective to install a total magnetic observation point near the fifth station on the flank of the volcano rather than near the summit. Another advantage of installation at this location is the ease of maintenance: while we can access the summit area only two months per year, the new point can be accessed at least 8 months per year.

Continuation of Atmospheric field measurement in Kakioka, Japan: For nearly 100 years, Kakioka Geomagnetic Observatory (JMA, Japan Meteorological Agency) has conducted atmospheric electric field observations with the classical water-drop type instrument as developed by Lord Kelvin. This experiment ended in February 2021. EMSEV conducted parallel observations with two different instruments to ensure the continuity of observations, and both showed good agreement. We published the results in Kamogawa et al. (2023): *Continued atmospheric electric field measurements following cessation of the long-term water dropper potential equalizer at Kakioka, Japan*. Geoscience Data Journal, 00, 1-9. https://doi.org/10.1002/gdj3.224.

IAVCEI eVolcano project: Improvements continue to be made for products made available to this initiative, including PowerPoint presentation materials.

Perspectives

The biennial EMSEV General Assembly (EMSEV2024) will be held in October 2024 in Crete (Greece). The 2024 budget provided to EMSEV by IUGG will be used primarily for this meeting. During EMSEV 2024, a session will be held in honor of Seiya Uyeda, the first EMSEV chairperson who passed away in January 2023.

EMSEV plans to focus work in two directions. The first is to continue strong participation in international meetings such as the IUGG meetings, as well as EMIW2024, EGU, AOGS, JpGU, CSES, and AGU. The second to strengthen EMSEV activities through international cooperation. For instance, cooperation with the Chinese satellite (CSES) mission (CSES mission).

T. Nagao, V. Tramutoli, J-Y Liu (EMSEV bureau members)
February 2024

Cotopaxi, Ecuador

1.2 The Voice of IAVCEI Early Career Researchers

ECR profile: Jared Bryan (Massachusetts Institute of Technology, USA)

Hello, I'm Jared Bryan, a graduate student at the Massachusetts Institute of Technology working (from a safe distance) on volcano seismology. I am fairly new to the volcanology community, but have spent most of my life interested in different natural hazards. I hope that this short introduction can explain how I found volcanology and have started to appreciate its fascinating scientific questions, as well as the foundational role that volcanoes play in the lives and cultures of the people who live near them.

Jared on Etna's 2003 NE rift zone (Linguaglossa) lava flow during a field trip in June 2023

I grew up in Kansas in the great plains of the United States, where the landscape is characterized by rolling hills and wheat fields. Far from any volcanoes, the highest point in the state is on the border with Colorado. But what these vast plains lack in geological splendor, they make up for as a stage for spectacular weather. Part of what's known as "tornado alley," Kansas hosts more tornadoes than almost any other place in the world. It was these demonstrations of nature's force that sparked my initial curiosity into natural hazards and Earth's dynamic systems.

It wasn't until a visit to an underground salt mine on a school field trip that I began to appreciate the subtler, longer timescale processes shaping the Earth. Located 200 meters below the surface, the mine acts as a time capsule for over 100 years of mining activity. What struck me the most from the tour was a segment of the roof in an abandoned cavern that had begun to sag, dripping like a fluid under the overburden pressure. Far removed from the tumultuous weather at the surface, the deformation of the salt spoke to a different rhythm of change. I was fascinated with the idea that the ground beneath my feet was just as dynamic over a longer timescale.

Building on this interest, I earned my undergraduate degree in Geology and Physics from Utah State University in 2020. While an undergraduate, I had amazing opportunities to explore different parts of Earth science. I worked on long-term

Jared with Jade Eyles on Masaya in February 2024 during the pre-conference field trip to Nicaragua before COV-12

geodynamic models of mantle flow and lithospheric rheology, I analyzed borehole geophysical data from the SAFOD borehole, and I worked as a technician in the geochemistry lab, where I shot a fair number of rocks with their fair share of X rays. I also got involved with the Southern California Earthquake Center, where in 2018 I applied machine learning approaches to seismic inverse problems related to fault rupture processes, and in 2019 I used ambient seismic noise to measure time-lapse changes in fault zone properties. These research experiences gave me a wide base in geophysics and led me to pursue seismology in graduate school.

In 2020, I started graduate school at MIT where I began working on volcano seismology. In my research, I use changes in seismic velocities as a probe of volcano dynamics. Changes in seismic velocities can be a sign of magma and volatile movement through the volcanic plumbing system, pressurization of magma chambers, and chemical evolution of the magma. I work on developing techniques for measuring seismic velocity changes in the deepest reaches of the magmatic system, with the goal of illuminating the movement and evolution of magma in the deep crust that often occurs aseismically. I have applied these tools to data from Mount St. Helens, where I am working to characterize the rheology of materials throughout the transcrustal magmatic system.

In 2024, I attended Cities on Volcanoes in Guatemala, my first volcanology conference. Before the conference, I attended the field trip to Nicaragua. I saw my first lava lake at Masaya volcano, donned my gas mask and helmet to peer into the crater at Telica, and had the chance to tour the Nicaragua earthquake, tsunami, and volcano observatory. Beyond hosting fascinating science presentations, COV12 centered the voices of those who live near the volcanoes and have memories of their recent eruptions. I will cherish my mid-conference trip to the Pacaya volcano and the moving cultural activities such as folk music from a band from Atitlán.

I am fairly new to volcanology, but already the study of volcanoes has brought me to amazing places and brought me together with wonderful people. Coming out of COV12, I am so optimistic that the volcanology community can make progress toward understanding volcanic unrest and eruptions, and learn from and communicate with local communities to reduce their risks. So here's to hoping I can contribute to that work!

1.3 Insider Perspective: What's my job?

Domenico Mangione: Volcanic risk management specialist at the Italian National Civil Protection Department

I hold a degree in geology from the University of Rome "Roma Tre" and studied at Libera Università Internazionale degli Studi Sociali (LUISS) where I achieved a Master of Science in "*Public administration management and policies*". I had also the opportunity to attend the post graduate course in assessing volcanic hazards and monitoring active volcanoes at The Center for the Study of Active Volcanoes (CSAV, University of Hawai'i at Hilo).

Domenico in the crater area of Mt. Etna.

Just before completing my graduate studies, I had the opportunity to apply for a volunteer civil servant position at the Volcanic Risk Unit of the Italian National Civil Protection Department (NCPD). My expectation was to learn as much as possible from a risk management perspective so to have more experience and information to better prepare further applications for other jobs. After my volunteer contract ended, and my studies finished, I applied for a permanent position. Well, after almost 14 years of work in the Volcanic Risk Unit, I'm still willing to learn more and more about this wonderful discipline. This job wouldn't be so enjoyable without seven wonderful colleagues with whom I have the pleasure to share the work every day.

Should I describe this job in one word, I would choose "*link*" for two main reasons. Firstly, because there is a continuous exchange of information with the Volcano Observatories (VOs), especially during periods of intense volcanic activity, and – more in general – with all scientific institutions that work within the Italian civil protection system. Secondly, because there is a tight connection with the Emergency Management Unit, to which we make scientific evaluations available and usable for the response. Additionally, we are actively involved in working groups aimed at defining future eruptive scenarios which are essential to prepare national civil protection plans and to define responses at regional and local levels, as well as to plan proper risk mitigation actions.

Diving into our core business, one of the most important tasks of the job is related to the process that leads to the declaration of Volcanic Alert Levels (VALs). The Volcanic Risk Unit chairs regular call conferences (generally monthly) where representatives from VOs, Universities and other scientific institutions present their data related to ongoing volcanic activity. After a discussion, which also involves decision makers from the regional civil protection, the VAL is proposed to the head of NCPD who is responsible for making the formal declaration.

Even though we are not in charge of monitoring and surveillance of Italian volcanoes, we have a small "*operational room*" where the most important monitoring parameters of the active volcanoes in Italy (Etna, Stromboli, Campi Flegrei, Vesuvio and Vulcano) are displayed.

We also put a lot of effort into contributing to risk awareness programs such as the "*Io non rischio*" national campaign (https://iononrischio.protezionecivile.it/it/), in supporting regional and local civil protection authorities in the organization of dissemination and training sessions on specific topics related to volcanic risk management, and in the organization of National level civil protection exercises.

Regarding my own specific area of interest, I'm mostly involved in all civil protection activities related to Stromboli volcano, such as the definition and update of operational procedures for the two experimental early-warning systems for explosive paroxysms and tsunamis induced by the volcanic activity – following the 2019 explosive paroxysms – and several tasks for ongoing applied research projects as funded by NCPD.

Working on the boundary between science and emergency response requires me to be always updated, not only on best practices regarding volcanic risk management, but also on current scientific advances in the field of volcanic hazard and risk assessment. Therefore, opportunities such as international congresses (including those supported by IAVCEI) and/or European funded projects – where scientific institutions and civil protection groups come to together – *represent a great opportunity to exchange know-how and address, where possible, scientific activity towards the needs of decision makers.*

Domenico in the Volcanic Risk Unit operational room of the NCPD in Rome (Italy).

Vesuvius, Italy

1.4 Observatory News

Meeting of the French volcanological community (SNOV): October 19–20, 2023

In October 2023, the French *Service National d'Observation en Volcanologie* (SNOV; CNRS-INSU) and the *volcanology section* of the *Comité National Français de Géodésie et Géophysique* (CNFGG, part of IUGG) co-organized a meeting of the French volcanological community. It took place on October 19-20, 2023 in Clermont-Ferrand (France) and was the first such meeting for more than 10 years. It brought together around 100 people, including researchers, engineers, PhD students, and post-doctoral fellows from all over France, including Clermont-Ferrand, Grenoble, Lille, Paris, Orléans, Chambery-Grenoble, Lyon, and a number of participants from French volcanological observatories located overseas.

Participants of the meeting of the French volcanological community held at the Université Clermont Auvergne, Clermont-Ferrand (France), October 19-20, 2023.

As the group had not met for such a long time, the main aim of the meeting was for the community to exchange ideas in a unifying spirit, in order to (re)create links and group synergy around a common interest. The main topic of the meeting was to discuss French volcanoes, so that many oral presentations and posters were presented for La Soufriere de Guadeloupe, Montage Pelée in Martinique, Piton de La Fournaise on La Reunion, Fani Maore (Mayotte), and the Mont Dore in the Auvergne. Participants included geophysicists, geochemists, geologists, and petrologists, as well as social scientists and legal specialists. There was a strong attendance and interest from the French Volcano Observatories, and a General Meeting of the SNOV also took place during the meeting. The participants were very satisfied with the outcomes of the meeting, and agreed to run it regularly with a general scope of volcanology, but with a strong focus on linking fundamental science with operational volcanology for increased preparedness, as well as volcano hazards and risks. Keep tuned-in for the next location, dates and agenda for this renewed French volcanology community initiative!

Poster and oral sessions at the October 2023 meeting of the French volcanological community.

Background: SNOV and CNFGG

The Service National d'Observation en Volcanologie (SNOV) has the remit to collect geophysical, geochemical, geological data over long periods of time in order to understand and monitor dynamic geological processes acting at short and long timescales on or nearby active volcanoes. SNOV also collects, analyses, archives, and distributes digital data on instrumental and felt seismicity and regional deformation in the Lesser Antilles volcanic arc. All data are distributed, a large part in real time, to the international scientific community for research

aiming at understanding the behavior of volcanoes and their regional tectonic context. All volcanic targets presenting either a threat to French territories or an interest in methodological and instrumental developments are considered. In particular when new developments have important implications for improving monitoring and knowledge of French active volcanoes.

SNOV achieves these goals via two main structures and contributing institutions, that have various common and integrated actions:

1. The Institut de Physique du Globe de Paris (IPGP, Université Paris Cité) which manages the three French overseas volcanological and seismological observatories (OVS) in Guadeloupe (OVSG), Martinique (OVSM), and La Réunion (OVPF). The observatories operate large monitoring networks set at the regional scale on the lesser Antilles Arc and on the Réunion Island hot spot, under the scientific and technical coordination of IPGP;

2. The Observatoire de Physique du Globe de Clermont-Ferrand (OPGC) at the Université Clermont Auvergne (UCA) that operates various volcanic observational services. The remote sensing component of the OPGC has a focus on both satellite and ground-based remote sensing of active volcanoes, and includes two SNOV-mandated real and near real time monitoring platforms: HOTVOLC (http://www.obs.univ-bpclermont.fr/SO/televolc/hotvolc/) for thermal infrared satellite observations and VOLDORAD for ground-based instruments, such as doppler radar and disdrometers.

The OPGC group is also responsible for other observation actions, including (and as available via the OPGC Virtual Observatory portal: http://opgc.fr/vobs/):

(i) Gas remote sensing and gas in-situ measurements (fumarole, volcanic plume, soil);
(ii) Maintenance of a multi parametric database for the volcano dynamics, including systematic textural, sedimentological, petrological and geochemical analyses;
(iii) Estimation of thermal budgets and fluxes; and
(iv) Geophysical imaging, as well as modelling, deformation, and instrumental development as carried out with the Technical Division of OPGC.

The main goal of the SNOV is to understand the volcanic and eruptive processes via monitoring three active volcanoes:

- An oceanic hot spot volcano, *Piton de la Fournaise* on La Réunion. Since the 1980's, Piton de la Fournaise has experienced, on average, two effusive eruptions per year, giving fantastic opportunities to observe the evolution of eruptive activity and to place it in the context of the state of strain of the volcanic edifice. Particular attention has been given to understanding eruption precursors to allow better prediction of the onset of eruptive events (e.g., time and location of vent opening) and real-time output of lava flow inundation maps. The monitored area was initially restricted to Piton de la Fournaise, but has since been extended to include the whole of La Réunion Island.
- Two subduction zone volcanoes, the *Soufrière of Guadeloupe* and *Montagne Pelée* in Martinique, for which potential volcanic hazards are very large, as illustrated by the 1902 Montagne Pelée crisis and the ongoing volcanic crisis on the nearby Montserrat Island, as well as the Kick'em Jenny crisis and the Soufriere of Saint-Vincent eruptions. These volcanoes are in the Lesser Antilles subduction zone, where large scale tectonic structures play an essential role in driving the activity of the volcanoes of the arc. Consequently, for some parameters, the monitoring is extended to the Lesser Antilles Arc via partnerships with regional actors (UWI-SRC, USGS, PRSN, Funvisis...).

In the aftermath of the major submarine eruption that began in June 2018 offshore of Mayotte island (Mozambique Channel, Indian Ocean), there is now a fourth active volcano in France. In the aftermath of this major eruptive event, the realization that we had many data gaps, and of the risks associated with an eruption on Mayotte itself, the French Prime Minister agreed on the urgent need to establish, in the long term, a new operational monitoring network and observation system for volcanic and seismic activity in Mayotte and the surrounding region. On 18 June 2019, the French government thus gave the responsibility to IPGP, with support from BRGM, CNRS-INSU, and IFREMER, to design, install, and operate the *Réseau de surveillance volcanologique et sismologique de Mayotte / Volcanological and seismological monitoring network of Mayotte* (REVOSIMA; see www.ipgp.fr/revosima). Data from REVOSIMA are produced by a large consortium of institutional

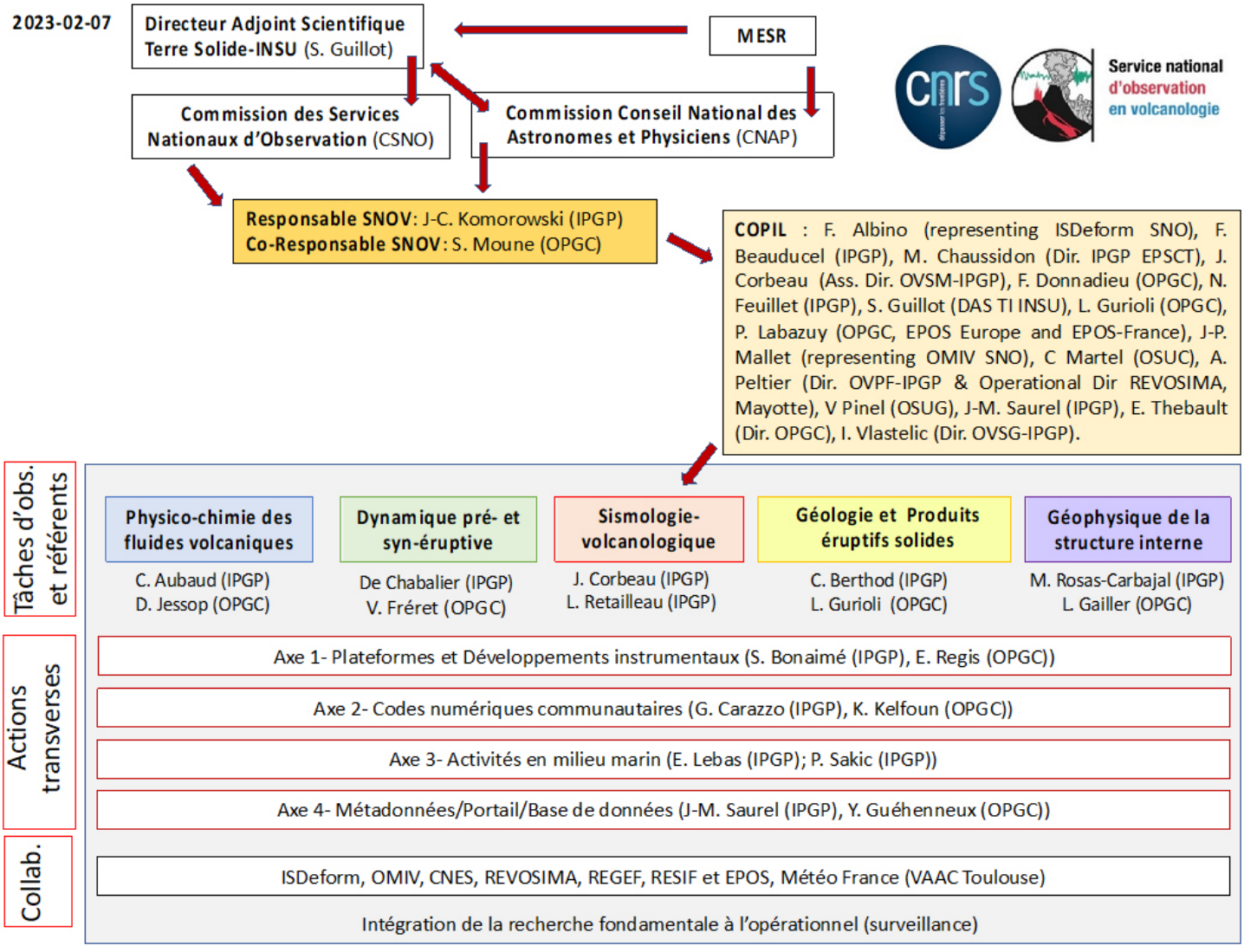
and academic national scientific partners in France. Given this exceptional eruption and need for implementation of a new observatory service for France's fourth active volcano, funding for the new monitoring network was earmarked by the French government from outside of the SNOV budget, and in coordination with the *Mission de pilotage des politiques publiques de prévention et de gestion des risques naturels en outre-mer* (MAPPPROM). However, a large part of the observatory tasks and data acquisition are performed by scientists of SNOV.

The three SNOV observatories and REVOSIMA operate using the *WebObs* platform developed at IPGP since 2002. In 2022 *WebObs* received the Open Science Award for Open Source Research in the "Accessit" community category, as awarded by the French Ministry of Research, Higher Education and Innovation. *WebObs* is a tool for managing, archiving, analyzing, visualizing, and distributing observatory data, initially designed to meet the daily needs of the French volcanological and seismological observatories. Designed around a minimalist web interface, *WebObs* currently offers ~20 real-time data flow processing modules compatible with international standards (e.g., Seiscomp3, Earthworm, FDSN for seismology), and is now used routinely in around 15 observatories around the world.

In coordination with the CNRS, the *French Ministry of Higher Education and Research* (MESR) is in the process of creating a French mirror of the *European Plate Observing System* (EPOS). This will be *EPOS-France* and the objective is to integrate EPOS-France on the next roadmap of French Research Infrastructure (RI). SNOV central to the preparation of *EPOS-France*, especially given that SNOV is a major contributor of data to the EPOS Thematic Core Service for 'Volcano Observations' (VOLC-TCS). As part of this,

- SNOV seismic data from OVSG-IPGP, OVSM-IPGP, OVPF-IPGP and REVOSIMA/IPGPBRGM-CNRS are available in real-time through the BCSF-RENaSS public website at https://renass.unistra.fr/fr/zones/lesantilles and the IPGP datacenter FDSN webservice.
- SNOV geophysical data are distributed through IPGP's Volobsis portal (http://volobsis.ipgp.fr).
- GNSS data are distributed through IPGP Glass node.
- Satellite data are distributed through OPGC's HOTVOLC portal.

In addition geological samples (>10 000) collected for the French active volcanoes (Piton de la Fournaise, Soufriere of Guadeloupe, Montagne Pelée, Mayotte) are integrated in a bar-



SNOV organigram

coded digital database (https://www.igsn.cnrs.fr) using following international standards (maintained.

Finally, SNOV works on analogous volcanic targets to:
(i) Constrain more the impacts of any explosive eruption on French territories (ash and gas dispersion);
(i) Provide data to the French Volcanic Ash Advisory Centre for eruptions that could impact air operations (as at, for example, Etna, Cumbre Vieja, and Fagradalsfjall);
(i) Test instruments and protocols for data collection using active explosive eruptions (e.g. the Cumbre Vieja eruption at La Palma and analogue targets, such as Chaine des Puys volcanoes.

The governance of SNOV includes the leader (Jean-Christophe Komorowski, IPGP) and co-leader (Séverine Moune, OPGC-LMV, UCA), and a Steering Committee (COPIL) involving 17 members. The Steering Committee meets at least, and if possible, two times a year by videoconference, and provides guidance on key issues of SNOV, including:

- The establishment of priorities in terms of needs for observational data and the means necessary to achieve the annual plan.
- Analysis and evaluation of new fields and techniques to aid in the development and improvement of monitoring and research.
- Liaison with other national services for observation of the Solid Earth (RESIF, R.NAG, BCMT, OMIV, BCSF-RENaSS, Geoscope, ISDeform).
- Distribution of data to the scientific community.

In 2022, it was proposed to improve the governance and integration of the SNOV community by (i) organizing an annual General Assembly, (ii) setting up a structure of thematic working groups with specific leaders to better define actions, and (iii) creation of a web page. To do this, SNOV coordinates organization of annual meetings of the French volcanological community with Philippe Lesage and Partick Bachélery, the leaders of the volcanology section of the *Comité National Français de Géophysique et de Géodésie*, which is linked to the IUGG.

Under the aegis of the French Academy of Sciences, the *Comité National Français de Géodésie et Géophysique* (CNFGG) ensures French participation in the activities of the International Union of Geodesy and Geophysics (IUGG). The CNFGG is thus organized into eight sections representing each of the eight IUGG associations:

1. Geodesy for the IAG
2. Seismology and Physics of the Earth's Interior for IASPEI
3. Volcanology and chemistry of the Earth's interior for IAVCEI
4. Geomagnetism and aeronomy for IAGA
5. Meteorology and Atmospheric Sciences for IAMAS
6. Hydrological Sciences for IAHS
7. Physical Ocean Sciences for IAPSO
8. Cryospheric Sciences for IACS

CNFGG is governed by the French law of 1901, and carries out various national activities, such as sponsoring scientific meetings, reporting on studies, and acting as an observer of French research in its fields of competence. Each year, it awards geophysics thesis prizes to doctoral students who have defended their theses in the previous year.

Séverine Moune, Jean-Christophe Komorowski, Philippe Lesage, Patrick Bachèlery, Fidel Costa and all those part of SNOV and CNFGG.

And on behalf of all members of the COPIL: V Pinel (OSUG), N. Feuillet (IPGP), F. Donnadieu (OPGC), L. Gurioli (OPGC), S. Guillot (DAS TI INSU), P. Labazuy (OPGC, EPOS Europe and EPOS-France), F. Beauducel (IPGP), J. Corbeau (Ass. Dir. OVSM-IPGP), J-M. Saurel (IPGP), C Martel (OSUC), I. Vlastelic (Dir. OVSG-IPGP), A. Peltier (Dir. OVPF-IPGP & Operational Dir REVOSIMA, Mayotte), F. Albino (representing ISDeform SNO), J-P. Mallet (representing OMIV SNO), M. Chaussidon (Dir. IPGP EPSCT), E. Thebault (Dir. OPGC).

Summary of acronyms used here

Acronym	Agency
SNOV	Service National d'Observation en Volcanologie
CNFGG	Comité National Français de Géodésie et Géophysique
IUGG	International Union of Geodesy and Geophysics
OVS	Observatoire Volcanologique et Sismologique
OVSG	Observatoire Volcanologique et Sismologique de Guadeloupe
OVSM	Observatoire Volcanologique et Sismologique de Martinique
OVPF	Observatoire Volcanologique du Piton de la Fournaise
OPGC	Observatoire de Physique du Globe de Clermont-Ferrand
IPGP	Institut de Physique du Globe de Paris
LMV	Laboratoire Magmas et Volcans
UCA	Université Clermont Auvergne
UWI-SRC	University of West Indies – Seismic Research Center
USGS	United States Geological Survey
PRSN	The Puerto Rico Seimic Network
Funvisis	Fundación Venezolana de Investigaciones Sismológicas
BRGM	Bureau de Recherches Géologiques et Minières
CNRS-INSU	Centre national de la recherche scientifique – Institute National Des Sciences De L'univers

IFREMER	The Institut Français de Recherche pour l'Exploitation de la Mer
MAPPPROM	Mission de pilotage des politiques publiques de prévention et de gestion des risques naturels en outre-mer
ISDeform	Service National d'Observation: Imagerie Satellitaire des Déformations de la Terre
OSUG	Observatoire des Sciences de l'Univers de Grenoble
OSUC	Observatoire des Sciences de l'Univers en Région Centre
DAS TI INSU	Directeur Adjoint Scientifique – Terre Interne – Institut National des Sciences de l'Univers
EPOS Europe and EPOS-France	European Plate Observing System Europe and European Plate Observing System France
RESIF	Réseau Sismologique et géodésique Français
RENAG	Réseau National GNSS permanent des laboratoires de recherche français
BCMT	Bureau Central de Magnétisme Terrestre

OMIV	Observatoire Multi-Disciplinaire des Instabilités de Versants
BCSF-RENaSS	Le Bureau Central Sismologique Français
Geoscope	Observatoire de Sismologie globale
Obsera	Observatoire de l'Eau et de l'Erosion aux Antilles
IAG	international Association of Geodesy
IASPEI	International Association of Seismology and Physics of the Earth's Interior
IAVCEI	International Association of Volcanology and Chemistry of the Earth's Interior.
IAGA	International Association of Geomagnetism and Aeronomy
IAMAS	International Association of Meteorology and Atmospheric Sciences
IAHS	International Association of Hydrological Sciences
IAPSO	International Association for the Physical Sciences of the Oceans
IACS	The International Association of Cryospheric Sciences

Quilotoa, Ecuador

SECTION 2. IAVCEI CONFERENCES, MEETINGS AND WORKSHOPS

2.1 COV: President's Report

Mid-conference field trip to Fuego (Bastian Steinke)

After nearly 4 years of preparation, and a massive collective effort, COV12 finally took place on 11–17 February 2024 in La Antigua Guatemala, a city surrounded by volcanoes in southern Guatemala. This city, with its rich history and resilience in the face of natural hazards, served as the perfect backdrop for our collective pursuit of knowledge and collaboration. COV12 was not only a success … it was an important step towards more inclusive and effective strategies of volcanic risk reduction.

The excellence of both scientific and non-scientific contributions, the engagement of both local and international participants, including local stakeholders, and the representation of Early Career Researchers all highlight the diverse and dynamic nature of this conference. New challenging yet key elements were successfully tested for the first time at a COV conference, such as bilingual seminars, lightning talks, and panel and group discussions. Exemplar were the novel approaches and insights offered by the representatives of communities exposed to volcanic hazards worldwide having faced distressing and severe impacts that inspired new paradigms for volcanic risk reduction.

The importance of COV cannot be overstated when considering the critical role it plays in volcanic risk reduction. In the aftermath of recent volcanic disasters, the need for interdisciplinary collaboration and shared knowledge has never been more apparent. COV12 provided a unique platform to address these challenges collectively and inclusively, fostering resilience in communities facing volcanic hazards.

In addition, the COV conference series plays a pivotal role within IAVCEI. Over the last 15 years, the meetings have taken place in Tenerife (Spain, 2010), Colima (Mexico, 2012), Yogyakarta (Indonesia, 2014), Puerto Varas (Chile, 2016), Naples (Italy, 2018) and Crete (Greece, 2022), the latter being delayed due to the COVID pandemic. COV conferences are organised by IAVCEI's commission *Cities and Volcanoes* (CaV) and symbolize the collaborative spirit, inclusive engagement, and shared commitment to advancing our understanding of volcanic processes and our effort to best characterize and reduce volcanic risk. This interconnectedness strengthens our collective impact and emphasizes the importance of collaboration across borders and disciplines.

Our deepest gratitude goes to all who made COV12 possible, with a special thanks to the Local Organizing Committee (LOC), the Program Organizing Committee (POC), the Commission CaV, all session organizers, all workshop and field trip organizers, all plenary speakers, all participants, all filmmakers and artists, all volunteers, and all sponsors. COV12 provides an inspiring legacy for COV13 that has enthusiastically taken over the relay baton with a renewed pledge for our collective pursuit of volcanic risk reduction!

We look forward to seeing you all in 2026 in Bend, Oregon!

Costanza Bonadonna

https://congress.iavceivolcano.org/sponsors/

2.2. COV: An ECR perspective

Sunrise from Santa Maria (Bastian Steinke)

View from: Bastian Steinke
(University of Auckland, New Zealand)

The 12th edition of Cities on Volcanoes, a conference biannually organized by IAVCEI, was held in Antigua, Guatemala in February 2024, following CoV11 in Heraklion in 2021. Traditionally focused on topics involving applied volcanology, social sciences, and risk and emergency management, the conference hosted a diverse group of participants from a broad range of academic and non-academic positions at the Porta Hotel in Guatemala's former capital Antigua, located near to Volcán de Fuego and Volcán de Agua.

Previous events including the IAVCEI-Scientific Assembly 2023 in Rotorua and IUGG 2023 in Berlin initiated aspirations for a higher degree of inclusivity and discussions around the needs within the volcanological community. CoV12 was the seamless continuation and enhancement of such endeavors, which was emphasized by the bilingual scheme of the scientific program as well as of associated events. Language as a central theme, and their importance for communication, were highlighted in all their aspects throughout the event, including presentations (held in English with slides in Spanish and vice-versa), artistic expression of social aspects of volcanology presented through music, artwork and poetry, and particularly through the many facets of the 22 indigenous languages spoken in Guatemala. Indigenous

Artist in the streets of Antigua during Domingo de Cuaresma before post-conference trip (Bastian Steinke)

culture was present at the conference, in the everyday-life of conference participants during their stay in Guatemala, but was also highlighted by specific projects such as the Ixchel program, as well as by pre- and post-conference field trips themed around local and indigenous knowledge.

Bridge used for evacuation visited during pre-conference trip to Fuego (Bastian Steinke)

Not only was this an opportunity for ECRs to engage in discussions around these topics; the bilingual environment also provided non-English speaking ECRs with a platform to share their research with the international community, who accepted the challenge to overcome language barriers to allow a previously non-existent communication to unfold, which the general ECR network benefited greatly from. It created an atmosphere enhancing direct communication during the event – not only between ECRs, but it also seemed a motivation for more experienced participants to start conversations (which might also have been due to the small name tags, which were difficult to decipher even in close range).

In the course of the event, discussions around pathways in volcanology became more prominent, including opportunities for ECRs to learn about different aspects of academic research in a specifically designed ECR chat, which built on similar events held at past international conferences. A striking aspect, however, was that many of the more experienced participants shared insights on their personal pathway in volcanology, which often included specific events (e.g., volcanic crises) or experiences related to risk assessment, communication and crisis management, which all are central focus points of Cities on Volcanoes conferences. Combined with the close proximity to simultaneously and visibly erupting volcanoes, ECRs were given the chance to experience parts of such topics first hand (partly through the numerous, detailed and well-organized field trips). These experiences formed a valuable part of the learning process, which many of the participants went through at some stage of their career, highlighting the value of the discussions and insights promoted by CoV not only to ECRs, but to all participants.

CoV12 further created and enhanced momentum to uphold approaches to facilitate access and inclusion in the volcanological community, particularly through its bilingual scheme. With the IAVCEI Scientific Assembly in Geneva (Switzerland) in 2025 and CoV13 in Bend, Oregon (US) in 2026, the desire for maintaining this momentum was noticeable, and it will be the task for the entire community of uphold and carry the momentum into future events to provide a similar stage that CoV13 has been—not only for early-career scientists, but for the benefit of the volcanological community and all those close to it.

Post-conference trip to Fuego (Bastian Steinke)

View from: Roberto Mérida Boogher (Volcanology Section of INSIVUMEH, Guatemala)

Cities on Volcanoes 12 was a truly unforgettable experience. It was a once in a lifetime opportunity to be the host of such a great conference and experience the thrill of receiving a group of passionate scientists, particularly those fascinated by the remarkable volcanoes found here in Guatemala. It was a privilege. It had been eight years since my hometown hosted a volcanology workshop on Santiaguito volcano, and back then, meeting the specialists who gathered around this Decade Volcano was a dream come true. Now, just about a month after Cities on Volcanoes 12, made possible by the incredible work of the local organizing committee, as well as other committees and volunteers, the memories still resonate deeply within me. The excitement of being part of such an amazing and diverse group of people—both attendees and presenters—lingers in my heart and mind. Together, we explored the cobbled streets of La Antigua Guatemala, ascended the flanks of Acatenango to witness Fuego's nighttime explosions, surveyed the ravines around Fuego, examined the impacts of its recent eruptions, traversed the now-solidified lava flows of Pacaya, and admired the shores of Lake Atitlan, perhaps, one of the most beautiful lakes in the world.

Amidst these breathtaking landscapes, gifted by the volcanoes, we encountered the resilient people who have survived the tragedies caused by eruptions, landslides, and other volcano-related events. During CoV12, we listened to their stories, learning about the profound grief they have experienced and the arduous work required to build resilience in their communities. We were also moved by the artistic expressions used by these groups to convey their dreams and hopes of continuing to live near the landscapes and land plots they hold dear in their hearts and minds.

This exchange of interdisciplinary knowledge and experience served as the perfect complement to the highly anticipated conferences and poster presentations on the latest advances

Looking south from the peak of Santa Maria towards Fuego and Pacaya in the far ground, with locals visiting for prayers (Bastian Steinke)

in volcano monitoring and research. The bilingual nature of the event made all of this accessible to a broader audience, facilitating discussions among more Latin American participants regarding current efforts and future strategies to empower communities living around volcanoes, increase knowledge about their volcanoes, and ability to manage associated risks effectively.

Reconnecting with old friends and colleagues was a pleasure, and meeting dozens of new friends and research partners was equally rewarding. I hope that Cities on Volcanoes continues to serve as a platform for fostering connections among those curious or passionate about volcanoes—especially for those who, despite residing in regions abundant with volcanoes, have fewer opportunities to study and understand them thoroughly.

View of Quetzaltengo (metropolitan population 750 000) from Santa Maria (Bastian Steinke)

2.3. COV: Honorary Awards

The new Executive Committee introduced a new accolade at COV12— the IAVCEI Honorary Award— which recognizes individuals for their lifetime achievements in, and contributions to IAVCEI themes. This year's Honorary Awards were posthumously bestowed upon two exceptional colleagues who recently departed but whose impactful legacies endure.

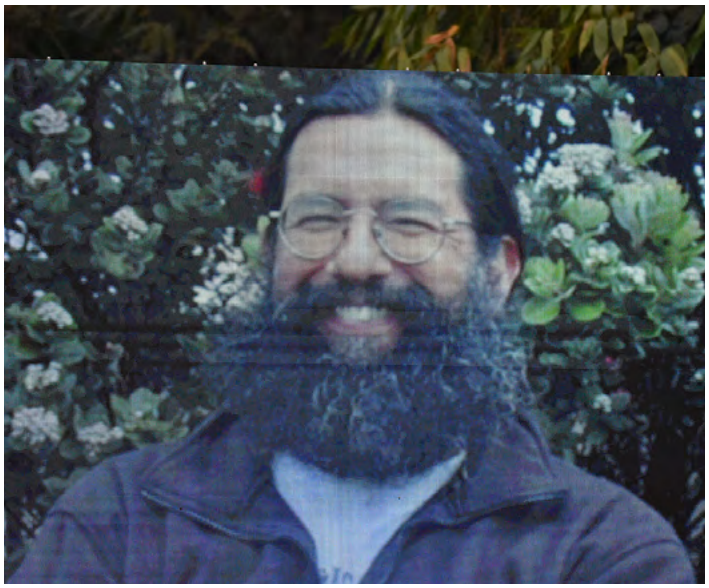
Patty Mothes and Pete Hall

The first honor went to Minard Pete Hall from the Instituto Geofísico – EPN in Quito (Ecuador). Pete Hall, a national and international reference in volcanology, leaves us with a legacy of knowledge that has significantly contributed to our understanding of seismic and volcanic phenomena in Ecuador and beyond. His instrumental role in co-founding the first observatory in Latin America in 1983 together with Hugo Yepes has played a pivotal role in volcanic risk reduction in the region. He also trained a whole generation of young volcanologists, some of whom attended COV12. His partnership with his wife Patricia Mothes was also a factor of success during his career, both scientifically and with his work with communities.

The second accolade was dedicated to Jim Kauahikaua from the Hawaiian Volcano Observatory (HVO). Jim Kauahikaua revolutionized volcano monitoring at HVO, intertwining it with a profound cultural understanding of how HVO is interconnected with the people of Hawaii and the ʻāina—the land in its broadest sense. This is an aspect that is key to the mission of IAVCEI and to our effort towards a more holistic and inclusive vision of volcanology and volcanic risk reduction.

Patty Mothes and Ken Hon accepted to receive these awards on behalf of Pete and Jim, respectively, offering two fantastic and touching presentations on their memory and legacies.

We are grateful to Pete and Jim for their passion and dedication, which will continue to inspire us moving forward. Their contribution serves as an example for the whole community.

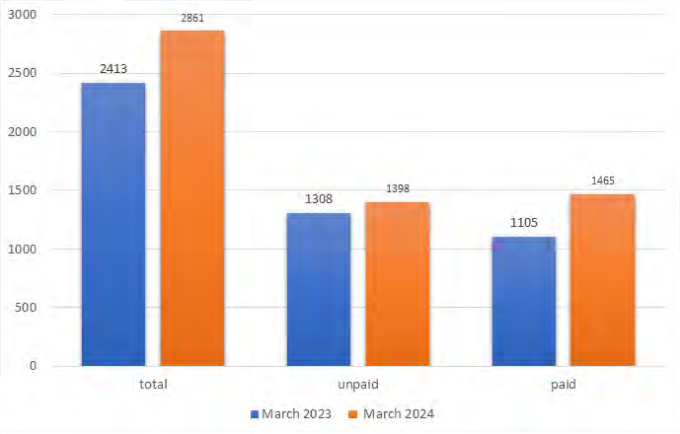


Ken Hon and Jim Kauahikaua

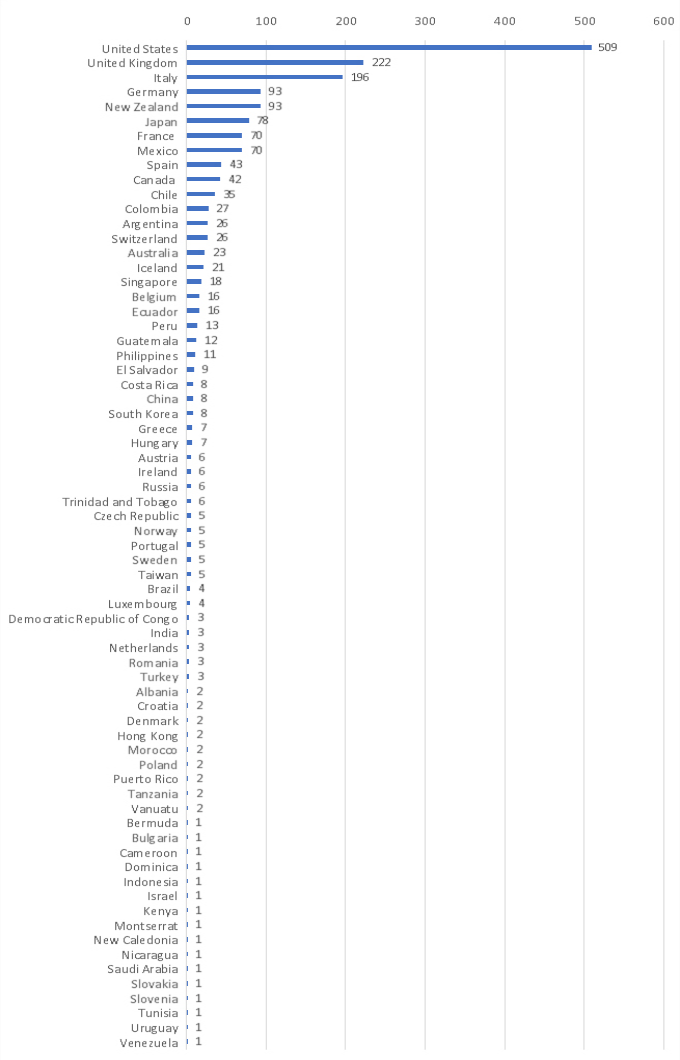
SECTION 3. IAVCEI – DOWN TO BUSINESS

3.1 2023 Year-end membership statistics

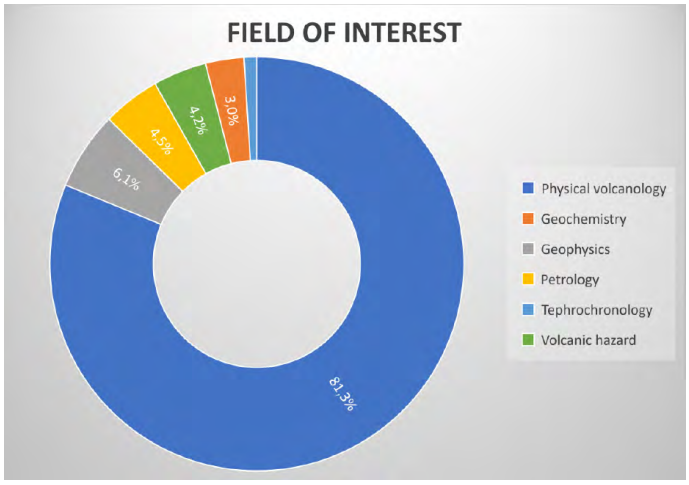
The 2023 year-end membership for IAVCEI (as audited in March 2024) shows 1465 paid members, up by 33% on the audit of March 2023 (for 2022).



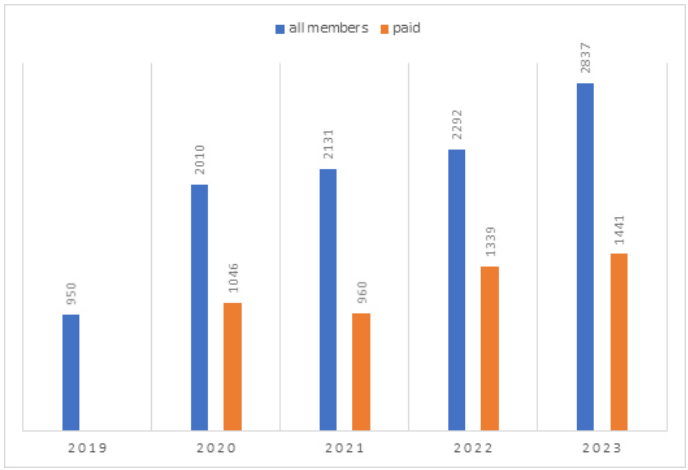
Of this membership, 43% were female and 50% were Early Career Researchers, from 69 different countries spanning all continents.



In terms of fields of interest, we are dominated by the "physical volcanology" category. Although we only have data for 60% of members (so please do enter this information into your membership form). However, it also suggests a need for the Executive Committee to better categorize our needs, as the "physical volcanology" bin is too broad.



IAVCEI continues to grow, but if you are not a paid up member for 2024 please consider renewing your membership, as the trend for paid members lags the trend for unpaid members. Several rights of members (voting, application to travel grants) are not in force if membership fee has not been paid.



3.2 Upcoming Events and Meetings

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

Upcoming events 2024

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

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

IAVCEI Scientific Assembly
June 29 – July 4, 2025
Geneva, Switzerland

Workshop of the 'Tephra Hazard Modelling' commission
In planning
Catania, Sicily, Italy
[commission Tephra Hazard Modelling]:
Before or after the 2025 IAVCEI Scientific Assembly

7th workshop Northern Andes
January 2025 or 2026
In planning
[commission Volcano Geology]:
https://volcanogeology.iavceivolcano.org/7th-workshop-northern-andes/


El Altar, Ecuador

10th International Conference on Tephra Studies

September 8–15, 2024
Monastero dei Benedettini di San Nicolò l'Arena (Catania, Sicily, Italy)
[commission Tephrochronology & Tephra Hazard Modelling; partner INTIMATE]

Please join us for the *10th International Conference on Tephra Studies* from September 8th through 15th, 2024 at the Monastero dei Benedettini di San Nicolò l'Arena in Catania, Sicily. Hosted by the commission on *Tephrochronology*, along with INTIMATE (INTegrating Ice-core, MArine and TErrestrial records) and the commission on *Tephra Hazard Modelling*, the conference is built around three themes:

1. Tephrostratigraphy and Tephrochronology:
Tephra in Quaternary studies, advances in geochronology, dating and correlation.

2. Tephra and Climate:
Insights on volcano-climate and climate-volcano interactions

3. Tephra and Volcanology:
Uses for constraining magnitude, frequency, hazards, ash modelling, and other related topics.

Abstracts for oral and poster presentations covering these three themes are welcome, where the abstract submission site will be open shortly.

Tentative Schedule:

Sunday, September 8	Icebreaker, including a tour of the Monastero (5–9 pm)
Monday, September 9	Talks and poster sessions
Tuesday, September 10	Talks and poster sessions
Wednesday, September 11	Mid-conference field trip to Mount Etna
Thursday, September 12	Talks and poster sessions, closing party
Friday, September 13	Post-conference field trips (optional)
Saturday, September 14	Post-conference field trips (optional)
Sunday, September 15	Post-conference field trips (optional)

Post-conference Field Trips
- Aeolian Islands
- Etna crater and surrounds, marine terraces and uplift, and Gela and the Plio-Pleistocene boundary.

Estimated Registration Costs

Full	400 euros
ECR	250 euros

Registration will include the icebreaker, coffee, lunch and mid-conference field trip.
Post-conference field trips will require payment of an extra fee (costs to be decided).
Abstract submission is expected to open in April. A website will be set up with more details shortly at https://cot.iavceivolcano.org/.
If you would like to ensure regular updates please join the Commission on Tephrochronology.

IAVCEI Scientific Assembly

June 29 – July 4, 2025
UNIMAL building, University of Geneva (Geneva, Switzerland)

The next IAVCEI scientific assembly will take place from June 29 to July 4, 2025 in Geneva (in the UNIMAL building of the University of Geneva). The theme of the conference will be: "*The energies of magmas: from volcanic eruptions and mineral resources to geothermal production and sustainability*".

Session proposal is open until 1 June 2024.
Proposals can be sent to Luca Caricchi (luca.caricchi@unige.ch).

This will be the first assembly organised by four countries (Switzerland, France, Germany, and Italy) with a scientific organising committee with representatives from almost all countries of geographical Europe (local organising committee, organising committee, scientific committee). The website (sa.iavceivolcano.org) for the conference is now online and will be progressively updated.

The sessions will be group in eight themes:

- Production of magma and assembly of volcanic plumbing systems
- Pre and syn-eruptive monitoring
- Volcanic processes
- Minerals for the energy transition
- Geothermal systems and carbon storage
- Hazard, Risk and Impact
- Communication in Volcanology
- The future of volcanology (a bundle of sessions organised by the ECRs of IAVCEI)

We have structured the program to have a maximum of four parallel sessions, which we intend to be cover more general themes so as to stimulate interaction between experts from different fields on research themes of broad interest.

Fieldtrips
Fieldtrips will take place before and after the conference and will focus on both active and extinct volcanic systems, as well as on plutons and mineralised hydrothermal systems.

Mid Conference visit to CERN
The mid conference fieldtrip will be a visit to CERN and will be a unique occasion for participants to discover the science carried out at the Large Hadron Collider. The visit will take place in the afternoon of Wednesday 2 June 2025 and the morning will be reserved for workshops.

Timeline

April 1, 2024	Session proposal submission opens
June 1, 2024	Session proposal submission closes
September 1, 2024	Sessions announced
October 1, 2024	Abstract submission, general registration and field trip registration opens
	Grant submission opens
December 20, 2024	Grant submission closes
January 15, 2025	Announcement of grants
	Abstract submission and field trip registration closes
February 28, 2025	Notification of abstract acceptance
March 31, 2025	Early bird registration closes

Registration will remain open throughout the conference for on-site registration.

3.3 Bulletin of Volcanology: Executive Editor's Column

The Bulletin of Volcanology, the IAVCEI members' journal, encourages paper submissions from all corners of our volcanology community. Here are some updates for the first quarter of 2024, and especially following meetings and discussions at Cities on Volcanoes 12 in Guatemala.

Meeting between Marie, Beate, Costanza and Ulli at COV12. Beate is our publisher responsible for Bulletin of Volcanology at Springer Nature (see IAVCEI newsletter December 2023, No. 4).

Journal turnaround

We are making a big effort this year to reduce turnaround times for the journal. We recognize the importance of fast publication, particularly for early career researchers (ECRs). This initiative is in parallel with continued efforts to maintain journal standard and quality. To help with this, and to allow more rapid handling (see: https://link.springer.com/article/10.1007/s00445-022-01619-8), we encourage all authors to read the information in, and follow the format and structure of, our journal template as available at https://link.springer.com/journal/445/updates/25882350.

Reviewer incentive scheme

You may not know about our reviewer incentive scheme, whereby when reviewers agree to review a paper for the journal Springer pays IAVCEI a sum of money directly. These funds are used by IAVCEI to fund travel grants to members to attend IAVCEI conferences (IAVCEI General Assemblies, IAVCEI Scientific Assemblies, COV).

Open access options

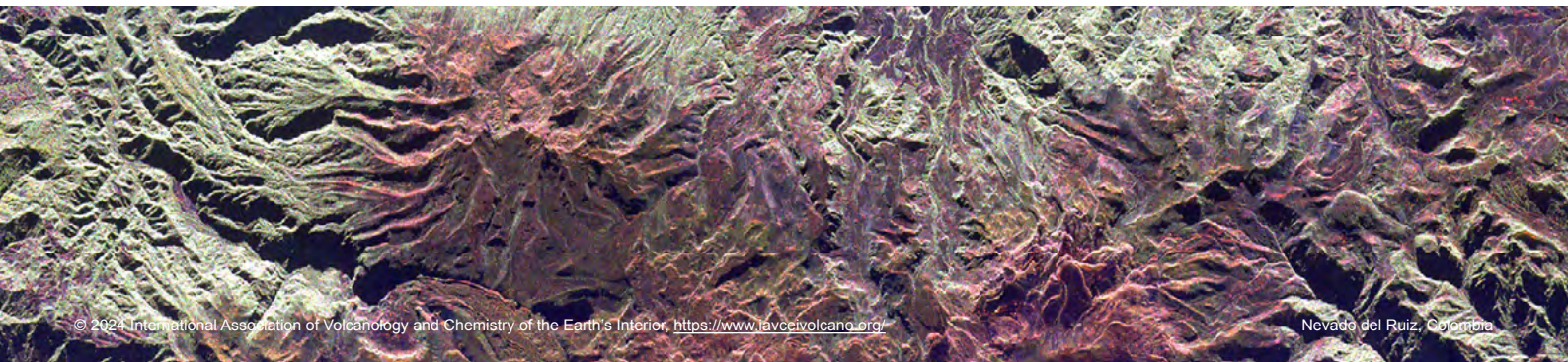
We would like to remind authors of the option for open access publication in the Bulletin of Volcanology. Transformative agreements with Springer to cover the article processing charge (APC) exist now for many countries and institutions globally; corresponding authors (articles may have more than one corresponding author) affiliated with participating institutions may be eligible to publish their articles open access with fees covered, so do check among your authors. If you are in any doubt about whether agreements exist for your co-authors check the website https://www.springernature.com/gp/open-research/oa-agreements. Open access fees may also be sponsored by a third party; details can be provided after acceptance of the paper.

Open access ECR program

New for this year, IAVCEI will cover one open access fee for a first author ECR who is planning to submit a paper for which none of the authors come from a country or institution with a transformative agreement with Springer. We invite all interested ECRs (defined as less than 10 years post-PhD excluding career breaks) to submit (a) a cover letter (containing details of current position, institution, paper title and authors, importance and significance of the volcanological findings and confirmation that they have checked whether agreements with Springer exist for all authors) and (b) a copy of the article abstract to Bull.Volc@uea.ac.uk by 1 June 2024. We will evaluate the submissions based both on need and scientific excellence.

Feedback and input

If you would like to propose new topical collection themes (https://link.springer.com/journal/445/updates/18557382), apply to be an Associate Editor, or suggest innovations in the way we do things, I would love to hear from you. As Editor-in-Chief, I will be present at all the major IAVCEI meetings so can meet with you in person or email me on marie.edmonds@esc.cam.ac.uk.



Nevado del Ruiz, Colombia