

International School of Volcanology

“Working on active volcanoes: learning the tools of modern volcanology”

Field observations, data acquisition, reporting and response

Aims

The Aeolian Islands are one of the best-known places for studying volcanic geology and activity. Spectacular basaltic explosions occurring continuously at Stromboli has made the island the target of many international experiments which have driven the way volcanologists are working today and have made the island one of the best volcano-laboratories in the world. At Lipari and Vulcano, perfectly-exposed outcrops and continuous gas emissions represent a unique opportunity to observe the variability of volcanic activity styles, from fumarolic through effusive to explosive; from Vulcanian to Plinian eruptions, and from basaltic to rhyolitic activity.

Students will be introduced to the state-of-the-art of physical volcanology, remote sensing, geophysics and geochemistry as carried out at active volcanoes, from tephra studies to instrumentation, data acquisition and processing, to application of data for reporting, monitoring and communication duties. Volcanological studies and monitoring tools will be integrated to define eruptive dynamics and volcanic alert levels. Moreover, there will be a specific focus on volcanic risk management procedures, with a practical example on how scientists and decision makers interact during a crisis.

Organization

The school is organized with short lectures and field applications. The school is strongly field-based, where lectures and discussion on volcano dynamics, and the use of the instruments, will be made in a hands-on manner rather than in theory. Multi-parametric experiments and outcrop observations will be carried out during the school and used to support learning through implementation.

Application is now open

Further school details and how to apply: see attached document

Official contact: school@aivulc.it

Target

The target of the school will be Master's and PhD students, and Early Career Scientists; especially those with observatory experience.

Maximum number of participants: 20

When

08–16 June 2025

Where

Venue: Lipari, Aeolian Islands (Hotel Filadelfia)
Measurement trips: Vulcano and Stromboli

Fees and registration

No registration fee & full board is provided for the duration of the school

Application deadline: **31st Dec 2024**

Participant selection: **31st Jan 2025**

Contributors

Andrew Harris	(University Clermont Auvergne)
Marco Pistolesi	(University of Pisa)
Guillaume Boudoire	(University Clermont Auvergne)
Alessandro Bonforte	(INGV-OE)
Diego Coppola	(University of Turin)
Dario Delle Donne	(INGV-OV)
Federico Di Traglia	(INGV-OV)
Cinzia Federico	(INGV-Palermo)
Valentin Freret-Lorgeril	(Univ. Clermont Auvergne)
Lydie Gailler	(University Clermont Auvergne)
Domenico Mangione	(Protezione Civile Nazionale)
Giancarlo Tambarello	(INGV-Bologna)



INTERNATIONAL SCHOOL OF VOLCANOLOGY

“Working on active volcanoes: learning the tools of modern volcanology”

Field observations, data acquisition, reporting and response

08 June – 16 June, 2025

Lipari, Vulcano and Stromboli (Aeolian Islands, Messina)

Venue: Hotel Filadelfia, Lipari: <https://www.lafiladelfia.it/>

Duration: 8 days

Dates: Sunday 08 June – Monday 16 June 2025

Organizers:

Andrew Harris (Université Clermont Auvergne)

Marco Pistolesi (Università di Pisa)

IMPORTANT DATES:

Application deadline: 31 December 2024

Participant Selection: 31 January 2025

Confirmation of Final Program: 30 April 2025

APPLICATION PROCEDURE

Please submit (in PDF format) the following:

1. A statement of interest giving your background relevant to the school and arguing why attendance of the school will be to your benefit (**max. 1 page**);
2. A current CV (**max. 1 page**);
3. Completed registration form (available at www.aivulc.it);
4. A completed and signed statement of health and fitness (below).

Documents need to be saved as follows: SURNAME_christian-name_<Document-type>.pdf

For example: BRADFORD_Geoff_Cover-Letter.pdf

Send the application package to school@aivulc.it with the Subject line:

Stromboli Summer School application 2025 – SURNAME Christian name

STATEMENT OF HEALTH AND FITNESS

I, the undersigned, <Name> <SURNAME>, born on <dd/mm/YYYY> in <City>, <Country>; and currently resident in <City> <(Country)>, address <street address>, <town>, <ZIP code>, <City>, <Country> hereby

DECLARE THAT

- I am able to complete a 500 m ascent in less than one hour carrying a load of at-least 10 kg;
- I am able to work in in hot (up to 35 °C), sunny, shade-free conditions for up to 4 hours;
- I will declare any and all health conditions*

*including food intolerances, all allergies and asthmatic and/or bronchial problems

Date: _____ Place: _____ Signature: _____

(If you have already submitted such a statement, **please do not resubmit**)

Deadline for applications is midnight (CET) 31 December 2024

All four documents must be included forthe application to be considered

PROVISIONAL PROGRAM (2025)

- Day 1 Sunday 8 June: Arrival and Introduction*
Morning: Check-in and registration
Afternoon: Introduction and self-presentation
Evening: Icebreaker & Meal
- Day 2 Monday 9 June: Volcanological and hazard background*
Morning: Aeolian Islands & Lipari-Vulcano-Stromboli
Afternoon: Monte Pilato: The past is the key to the future
Evening: Meal
- Day 3 Tuesday 10 June: Multi-disciplinary monitoring*
Morning: Geophysical and geochemical monitoring
Afternoon: Infrared remote sensing
Evening: Meal
- Day 4 Wednesday 11 June: Geophysical and geochemical monitoring at a closed system: Vulcano*
Morning: Introduction to, and tools of, discrete monitoring
Afternoon: Measuring a hydrothermal system (Vulcano beach)
Evening: Meal
- Day 5 Thursday 12 June: Risk management I: Vulcano*
Morning: Measuring a hydrothermal system (Vulcano Fossa)
Afternoon: Time series analysis and interpretation
Data processing and reporting
Evening: Meal
- Day 6 Friday 13 June: Geophysical monitoring at an open system (Stromboli)*
Morning: Installation of seismo-acoustic array
Afternoon: Observations and measurements
Evening: Meal
- Day 7 Saturday 14 June: Risk management II: Stromboli*
Morning: Stromboli: warning system and local needs
Afternoon: Tsunami hazard and risk management
Evening: Meal
- Day 8 Sunday 15 June: Risk management III: Reporting and Communication*
Morning: Reporting
Afternoon: Decision making simulation
Feedback session and debrief
Evening: Meal & Graduation Party
- Day 9 Monday 16 June: Departure*
Morning: Check-out by 11h00

GENERAL INFORMATION

Note that this summer school is designed for final year (graduated) Master's students, PhD students and Early Career Scientists

1. Language

The official language of the school will be English.

2. Registration Fees

We will cover accommodation during the school (8 nights), as well as breakfast and evening meals, plus boat and bus fares during the school. The only fees will be:

- €15 for AIV membership (new or renewed membership);
- Lunch (pic-nic) every day;
- Transport to reach/leave Lipari at the beginning/end of the school.

Participants will have to fund their travel, and any costs incurred along the way (i.e., to and from Lipari)

3. Accommodation

Classes will be held at the Hotel Filadelfia in Lipari. Accommodation will be in triple or quadruple rooms in the Hotel Filadelfia. Those with special accommodation requirements must inform the Organizing Committee at school@aivulc.it

The hotel is centrally located with a supermarket, bakery, bars, *tavola calda* and other shops within a 2–5 minute walk. There is a hardware store next door, plus a post-office and bank machines (on the international circuit) within the same distance.

4. Check-in

Registration and the welcome reception will start at 7:00 am on Sunday 8 June, this being the arrival time of the first boat from Sicily (more information will be provided once admission is confirmed).

5. Travel

Most international travelers reach Stromboli island from Catania (Sicily) or Naples (Campania). An overnight ferry connects Naples to Lipari (car ferry: <https://carontetourist.it/it/siremar>). There is a bus from Catania airport to Milazzo harbour (<https://giuntabus.com> and <http://www.alibrando.net/en/book-your-transfer/>), plus taxi services. Hydrofoil and ferry services connect Milazzo to Lipari (hydrofoil: <https://www.libertylines.it/orari-tariffe.php>; ferry: <https://www.traghettilines.it>). A hydrofoil service also runs from Messina, which is also linked to Catania airport by bus.

6. Clothing

Participants must have the equipment normally used by geologists to work on active volcanoes. Suitable mountain boots are mandatory. Enough clothing adequate for any weather changes, jacket for cold conditions, wind proof and rain-proof jacket, sun glasses, sun hat/cap and sunscreen are also necessary. Swimming or ski goggles are useful in the event of high winds which can carry ash, plus a torch/head lamp and batteries.

HEAT AND SUN WILL BE THE MAIN ISSUE, WHERE TEMPERATURES MAY BE AT-LEAST IN THE MID-30'S AND THERE IS LITTLE SHADE, ESPECIALLY ON VULCANO.

Thus you must be prepared for very hot conditions, and to work under the sun.

If you have problems with working in such conditions we recommend that you do not apply for the school.

7. Number of participants

Maximum number of participants admitted = 20

SELECTION CRITERIA

Admittance to the school is dependent on submitting the full application package to school@aivulc.it by midnight (CET) of 31 December 2024.

Should the application number exceed the places available, the organizing committee will make a selection on the basis of quality of the candidate and relevance of the application letter.

The candidate / applicant must meet at-least one of the following criteria:

- ✓ Have an advanced knowledge in the principles of geophysics, geochemistry, petrology, remote sensing, and hazard-risk-mitigation, and their application to volcanic scenarios;
- ✓ Be currently in, or preparing for a future in, volcano science;
- ✓ Have an interest relevant to volcano surveillance and monitoring, and/or hazard assessment, risk analysis or disaster management.

Considering the advanced level of the school, all participants should also:

- ✓ Be at the PhD, post-doc or early career scientist (within 6 years of PhD) level*;
- ✓ Have a level of English sufficient to allow participation in discussions within a multicultural and multilingual group.

*applications from Graduate or Master's students may be considered in case of available positions.

Applications must be in English.

These requirements must be met through a one page statement of interest supported by a one page CV that demonstrates that the qualification criteria are met. The CV must include a listing of all **relevant** courses taken (and level: undergraduate, master's, PhD, summer school ...), field work completed and course teachers and project supervisors.

The candidate must also complete the statement as to level of fitness and health.

For further information please contact the Organizing Committee at school@aivulc.it