

4th IMPROVE School: MULTI-FACET SCIENCE: DATA, MODELS, INFRASTRUCTURE, INDUSTRY AND COMMUNICATION

Potsdam, Germany
28 - 31 May 2024

The Marie Skłodowska-Curie European Training Network "Innovative Multi-disciplinary European Research training network on VolcanoEs" (MSCA-ETN IMPROVE) is a project funded by the European Commission under the Horizon 2020 Framework Programme. In IMPROVE, 15 Early Stage Researchers are trained to innovative research in volcano science extending across the academia-industry bridge, and including cooperative work, leadership skills, and independent thinking. Volcano science includes from innovative monitoring and prospecting to advanced lab experiments, High Performance Computing, and Artificial Intelligence.

KEY TRAINING ELEMENTS

Understanding the sources of geophysical signals is strictly tied to knowledge of the underground space-time distribution of physical and chemical quantities. In industrial environments such as geothermal fields, that knowledge allows the characterization of the reservoir as well as of the mechanisms associated with fluid motion, fundamental to optimize heat and energy production. In volcanology, understanding the space-time distribution of signal sources is crucial for proper early warning systems and hazard forecasts. This School will provide examples of multi-parametric data analysis, corroborated by approaches from numerical to experimental, and will discuss the use of infrastructures as key elements for Science at multi-scales. The School will also analyze how industries use knowledge of the underground to define industrial strategies. Additional training elements include project management, research leadership, good communication and career/life optimal paths.

TARGET PARTICIPANTS

PhD candidates and early stage postdocs

SCHEDULE

May 27	Arrivals & ice-breaker
May 28	Multi parametric observations methods Multi parametric modelling
May 29	School trip: Discovery of multi-cultural Berlin
May 30	Infrastructures and integration approaches
May 31	Multi ways to transfer Science
June 1	Departures

PRELIMINARY LIST OF TEACHERS

Klaus Bauer, Marco Bohnhoff, Sascha Brune, Valérie Cayol, Gilda Currenti, Maryory Sarria Dulcey, Christian Haberland, Andre Kloth, Martin Lipus, Shane Murphy, Bjarni Pálsson, Paul-Eric Potie, Simona Repensburg, Claudia Rey Crowie, Umberto Riccardi, Matthias Roseneau, Ute Weckman, Philipp Weis, Christopher Wollin, Josef Zens.

SCHOOL COSTS

Each student will pay a contribution towards the true costs. This includes ice-breaker party, lunch, coffee breaks, social dinner, school materials, and a mid-school visit of Berlin. The cost is **€160,00** per participant.

The school is open to a maximum of 15 students, besides IMPROVE fellows. Participants will be selected on the basis of demonstrated relevance of the school for their research and career development.

Deadline for Registration: **13 May 2024** | Information on Acceptance: **15 May 2024**

Applications should be sent to philippe.jouset@gfz-potsdam.de. The applicants must include a max. 5 lines statement explaining why the school is relevant for their activities and career.

The school will be held at the GFZ Potsdam, Germany. See more information on the venue here:

<https://www.gfz-potsdam.de/en/>