



ISTITUTO NAZIONALE
DI GEOFISICA E VULCANOLOGIA

WEST
Systems



4th and 6th SSC Improve: Geochemical And Geophysical Methods For Volcano Monitoring And Geothermal Exploration

Dates: 30 September–3 October 2024

Venue: West Systems S.r.l., Via Don Mazzolari 25, 56025 Pontedera (PI), Italy

Possible hotels in Pontedera (there will be a daily shuttle service connecting the hotels and the meeting venue)

<https://www.hotelfalchetto.it/>

<http://www.lesodole.it/>

<https://www.albergolapacepontedera.it/>

Preliminary program

Monday 30 September 2024

9:00–11:00 **G. Chiodini:** Geochemical methods for volcano monitoring and geothermal exploration.

11:00–11:30 **Coffee break**

11:30–12:30 **G. Tamburello:** Multi-sensor gas analyzer and thermal imaging.

12:30–14:00 **Lunch break** at the Amalia lake

14:00–15:00 **L. Coppo:** The West Systems srl and its flux-meters.

15:00–16:00 **L. Coppo:** Practical demonstration of CO₂ emission measurements with flux-meters.

Tuesday 1 October 2024

9:00–11:00 **G. Bini:** Concepts and methods for the analysis of spatial data.

11:00–11:30 **Coffee break**

11:30–12:30 **G. Tamburello:** Practical demonstration of thermal imaging from ground and drone measurements.

12:30–14:00 **Lunch break** at Pizzeria / Friggitoria Da Belindo

14:00–15:00 **M. Lelli and G. Bini:** Introduction of the Larderello geothermal area and field work activities.

15:00–16:00 **L. Coppo:** Practical demonstration of flux-meter calibration before field work activities.

Wednesday 2 October 2024

9:00–10:30 Transfer to Le Biancane (Larderello).

10:30–13:00 Field work: practical demonstration of fumarole sampling and thermal imaging. Measurements of soil CO₂ emissions with the accumulation chamber.

13:00–14:30 **Lunch break** at Enoteca degli Eretici

14:30–16:00 Field work: measurements of soil CO₂ emission with the accumulation chamber.

16:00–17:30 Visit at the museum of Le Biancane and brewery (Vapori di Birra).

17:30–19:00 Transfer to Pontedera.

Thursday 3 October 2024

9:00–13:00 Statistical analysis of the data collected during the field work using the sGs webApp.

COSTS

There are no costs for the participating students, who are required to arrange themselves their travel and hotel reservations. Coffee breaks, as well as transportation for the Larderello field trip, are offered by the organization.

PRELIMINARY LIST OF TEACHERS:

- Dr. Giovanni Chiodini
- Dr. Leonardo Coppo
- Dr. Giancarlo Tamburello
- Dr. Giulio Bini
- Dr. Matteo Lelli

