28 July 2023 - VOLCANIC CRISIS SIMULATION

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9:00 – 9:10	BEST POSTER PRESENTATION AWARD
9.10 – 9.30	Data provision and introduction to the simulation exercise
9.30 – 11.00	Simulation exercise
11:00 – 11:30	Coffee break
11.30 – 13.00	Simulation exercise
13:00 - 14:00	Lunch
14.00 - 16.30	Simulation exercise
16:30 – 17:00	Coffee break
17.00 – 18.00	Each group presents their bulletin to Civil Protection, and their short communicate
	to the media (with rapporteurs)
18.00 – 19.00	Debriefing and general discussion
19.00 – 19.20	Illustration of the real system evolution

MPRO

Improve Network School on Mount Etna **MULTIPARAMETRIC VOLCANO MONITORING: DATA PROCESSING, ANALYSIS and MODELLING**

School Directors: Eugenio Privitera, Giuseppe Puglisi, Paolo Papale (IMPROVE Coordinator) Management: Raffaela Pignolo | Technical Committee: Patrizia Pantani, Massimiliano Cascone, Salvatore Consoli, Salvatore Mangiagli.

IMPROVE is a H2020 Marie

Sklodowska-Curie Innovative Training Network for the next generation of European volcanologists

30 international PhD and post-PhD students in volcano science are trained on multiparametric volcano monitoring and modeling of volcano dynamics, through a combination of theoretical lessons and exercises, and the simulation of a volcanic crisis



SCHEDULE

July 23	Arrivals (late afternoon) & ice-breaker
July 24	Volcano deformation: theory and exercises
	wine session
July 25	Volcano degassing: theory and exercises
	wine session After-dinner presentation of
July 26	Field excursion on Mount Etna
July27	Volcano seismicity: theory and exercises
	EPOS data portal Late afternoon students
July 28	Final exercise: simulation of a volcanic crisis
July 29	Departures in the morning











VENUE



| Late afternoon students' posters &

Late afternoon students' posters & the field excursion

Afternoon training module on the posters & wine session

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FUNIVIA DELL'ETNA **GRUPPO RUSSO MOROSOLI**



IMPROVE – Etna School schedule

Day 1	24 July 2023 – VOLCANO DEFORMATION	Day 3	26 July 2023 – FIELD TRI
8:30 – 8:50 8:50 – 9:00 9:00 – 10:30	Registration, material collection Welcome by the Coordinator (P. Papale) & School Directors (E. Privitera, G. Puglisi) Volcano Ground deformations: introduction and measurement techniques Introduction on volcanic processes and volcano deformation (G. Puglisi) Tilt (S. Gambino) Strain (G. Currenti) GNSS (A. Bonforte) SAR (F. Guglielmino) 	7:30 9:40 12:00 14:00 15:00 15:30 17:00 / 17:30	Lead: B. Behncke Leave from Nicolosi on bus, then ca Ascent to the Barbagallo crater, ar Cisternazza and Belvedere areas (v Cone of the 2001 eruption. Demon Multiparametric monitoring station Start descent from the volcano (or Leave on bus, arrival at Nicolosi by
10:30 - 11:00 11:00 - 11:30 11:30 - 13:00	 FAIR data principles and the EPOS hub (J. Michalek) Coffee break Analitical models for ground deformation (F. Cannavò; F. Guglielmino) General introduction and exercises 		NOTE: the program might be unrest/eruptive conditions.
13:00 - 14:00 14:00 - 16:30	Lunch Numerical models for ground deformation (D. Garg) • General introduction and exercises		
16:30 - 17:00 17:00 - 18:00	Coffee break Slide presentations by the individual exercise groups, showing their results and interpretations for both the analytical & numerical exercises	Day 4	27 July 2023 – VOLCANC
10.00 13.00	Thist group of temposter presentations by the students, with evening drinks	9:00 – 9:40 9:40 – 11:00	Introduction to the seismicity of act Mount Etna volcano (E. Privitera) Volcano-tectonics seismicity: locat ° General introduction and ex
Day 2	25 July 2023 – VOLCANO DEGASSING	11:00 - 11:30 11:30 - 12:00 12:00 - 12:30	Coffee break Volcano-tectonics seismicity: locat Analyses of infrasound events and
9:00 - 9:30 9:30 - 10:00 10:00 - 11:00 11:00 - 11:30 11:30 - 12:30 12:30 - 13:00 13:00 - 14:00 14:00 - 14:30	Observing degassing in volcanic plumes (G. Salerno) The H ₂ O-CO ₂ -melt system (P. Papale) Exercises on the H ₂ O-CO ₂ -melt system (part 1) Coffee break Exercises on the H ₂ O-CO ₂ -melt system (part 2) Technological developments in measuring volcanic degassing (L. Coppo) Lunch The H ₂ O-CO ₂ -SO ₂ -H ₂ S-melt system (R. Moretti)	13:00 - 14:00 14:00 - 16:30 16:30 - 17:00 17:00 - 18:00	sources (A. Cannata) Lunch Exercises on: volcanic tremor amo volcanic tremor sources (A. Cannata) tremor (L. Zuccarello) Coffee break Slide presentations by the individe and interpretations
14.30 - 16.30 16:30 - 17:00 17:00 - 18:00	Exercises on the H ₂ O-CO ₂ -SO ₂ -H ₂ S-melt system Coffee break Slide presentations by the individual exercise groups, showing their results and interpretations	18:00 – 19:00	Third group of ten poster presenta
18:00 – 19:00	Second group of ten poster presentations by the students, with evening drinks	20:30	Social dinner

21:30 After dinner movie presentation of the Etna field trip on the following day (Boris Behncke)

RIP ON MOUNT ETNA, SOUTH FLANK

a cable car to 2750 m a.s.l. arrival at 10:30 (view on Valle del Bove) onstration on the use of drones (T. Ricci & others) ion at Monte Frumento Supino on foot) by 18:00

be modified depending on climate and

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active volcanic areas with particular reference to

ation methods (M. Aliotta) exercises (part 1)

ation methods, exercises (part. 2) (M. Aliotta) nd tremor (L. Zuccarello) yses and location methods for volcanic tremor

mplitude analyses and location methods for anata) and analyses of infrasound events and

vidual exercise groups, showing their results

ntations by the students, with evening drinks