

SESSIONI POSTER (17.30 – 19.30)
CHIOSTRO DI LEVANTE

S01 - GEOFLUIDS FROM MANTLE TO VOLCANIC AND GEOTHERMAL SYSTEMS: SAMPLING, ANALYTICAL TECHNIQUES, AND INTERPRETATION OF DEEP AND SHALLOW MAGMATIC PROCESSES

Pannello 1

Active OP-FTIR measurements reveals water vapor and methane chloride emissions from Salinelle mud volcanoes, Paternò (Sicily, Italy)

Pietro Bonfanti, Alessandro La Spina

Pannello 2

In-soil radon data collected throughout the 2015-2023 period at Mt. Etna: correlation with magma dynamics and potential use in volcano monitoring

Luca Frasca, Salvatore Giammanco, Filippo Murè, Marco Neri, Paolo Principato, Marco Viccaro

Pannello 3

Spatio-temporal compositional evolution of the La Fossa fumarolic field (Vulcano, Italy)

Simone Lentini, Marcello Bitetto, Luciano Curcio, Giancarlo Tamburello, Angelo Vitale, Alessandro Aiuppa, Pierfrancesco Dellino, Roberto Sulpizio

Pannello 4

Gaseous Elemental Mercury (GEM) in interstitial soil and free gases in a peripheral area of Mt. Etna, a preliminary study

Francesco Tripodi, Filippo Brugnone, Walter D'Alessandro, Francesco Parello, Giovannella Pecoraino, Salvatore Giammanco, Vincenzo Stagno, Sergio Calabrese

Pannello 5

Fluid inclusions trapped in ultramafic rocks and lavas reveal the existence of crustal fluids infiltrating the Polinesia upper mantle

Clarissa Quaranta, Andres Sandoval Velasquez, Pierangelo Romano, Alessandro Aiuppa, Andrea Luca Rizzo, Matthew G. Jackson

Pannello 6

Classical geochemical methods vs. Unmanned Aircraft Systems: mapping of the gas manifestations at Pantelleria island (Italy)

Walter D'Alessandro, Sergio Bellomo, Antonino Pisciotta, Angelo Battaglia, Francesco Parello

S02 - INTEGRATED APPROACHES IN VOLCANIC STUDIES: FROM FIELD INVESTIGATIONS TO GEOCHRONOLOGY, STRATIGRAPHY, VOLCANO-TECTONICS AND GEOMORPHOLOGY

Pannello 7

150 years of Etna summit craters through a photogrammetry-based time machine

Cristina Proietti, Emanuela De Beni, Massimo Cantarero, Fabio Luca Bonali, Mimmo Palano, Riccardo Cioico, Mario Paratore

Pannello 8

Development of a global database of deposit-derived pyroclastic density current occurrences

Federico Di Traglia, Emanuele Intrieri, Alessandro Vona, Andrea Bevilacqua, Gianmarco Buono, Alessia Falasconi, Massimiliano Favalli, Alessandro Fornaciai, Giovanni Gigli, Carlo Alberto Garzonio, Luca Nannipieri, Rosella Nave, Augusto Neri, Teresa Oreade Grillo, Lucia Pappalardo, Massimo Pompilio, Claudia Romano, Alba P. Santo

Pannello 9

Preliminary $^{40}\text{Ar}/^{39}\text{Ar}$ ages for Cala delle Giache centre (Pantelleria Island, Italy)

Alessandra Cinquegrani, Stéphane Scaillet, Antonino Libasci, Silvio Giuseppe Rotolo

Pannello 10

New insights on the submarine morphology and evolution of Pantelleria volcanic complex from marine geology studies

Claudia Romagnoli, Daniele Casalbore, Marilena Calarco, Alessandro Bosman, Eleonora Martorelli, Aida Maria Conte, Giorgio Gasparotto, Francesco Latino Chiocci and the PANTHER Teams

Pannello 11

Crystallization and eruption age estimations using U-Th disequilibrium dating: Torfajökull volcano, South Iceland

Zoe Moser, Razvan-Gabriel Popa, Sæmundur Ari Halldórsson, Kristján Jónasson, Chetan Nathwani, Olivier Bachmann

Pannello 12

Anatomy of a volcanic vent: new insights into the intra-crateric pyroclastic deposits of the Astroni volcano (Campi Flegrei)

Ileana Santangelo, Claudio Scarpati, Annamaria Perrotta, Lorenzo Fedele, Federica Güll, Raffaello Cioni, Claudia D'Oriano, Federica Pardini, Fabio Speranza

Pannello 13

Application of paleomagnetic methods on two variably welded peralkaline fallout deposits from Pantelleria Island (Sicily Strait): inferences on emplacement temperature and welding

Laura Insinga, Gaia Siravo, Fabio Speranza, Alessandra Cinquegrani, Silvio Giuseppe Rotolo

Pannello 14

Tree-ring anomalies in temperate forests of central and southern Mexico associated with large historical volcanic eruptions worldwide: preliminary results

Nahir Guadarrama, Osvaldo Franco-Ramos, Julián Cerano-Paredes, Lucia Capra

Pannello 15

An updated stratigraphy of the Sabatini Volcanic District

Alessandro Frontoni, Fabrizio Di Fiore, Daniele Morgavi, Guido Giordano

Pannello 16

Precursory phreatic activity of the 1888-90 eruption of La Fossa of Vulcano (Eolian Islands, Italy)

Raffaello Cioni and PRIN HEATED Project Team

Pannello 17

DTMs using drone-based LiDAR for morpho-structural analysis of active calderas: the case of Ischia Island, Italy

Argelia Silva-Fragoso, Gianluca Norini, Rosa Nappi, Gianluca Gropelli, Alessandro Maria Michetti

Pannello 18

An updated catalogue of the past 10 ka eruptions at Ischia (Italy), based on stratigraphical, archaeological and geochronological data

Sandro de Vita, Fabio Sansivero, Monica Piochi, Enrica Marotta, Fabio Speranza, Gilda Risica, Mauro Antonio Di Vito

Pannello 19

Hydromagmatism at Stromboli volcano revealed by ash morphology in the Scari Formation (PaleoStromboli III, 41-34 kyrs)

Marta Minniti, Federico Lucchi, Daniela Mele, Eugenio Nicotra, Roberto Sulpizio, Claudio Antonio Tranne

Pannello 20

A Messinian tephra layer in the marine deposits of the Squillace area (CZ, eastern Calabria): a preliminary study

Benedetta Rondinelli, Rosanna De Rosa, Andrea Di Capua, Rocco Dominici, Paola Donato

Pannello 21

Paleomagnetic correlation and dating of Montaña Goteras and La Cucaracha volcanic units from Cumbre Vieja (La Palma, Canary Islands) volcano

Andrea Magli, Fabio Speranza, Massimo Pompilio, Stavros Meletlidis, Alessio Di Roberto, Paola Del Carlo, Guido Giordano

Pannello 22

The Solfatara eruption of Campi Flegrei (Italy): phreatic to phreatomagmatic dynamics at active calderas through deposits and products characterization

Andrea Todde, Bianca Scateni, Marija Voloschina, Roberto Isaia, Paola Marianelli, Antonella Bertagnini, Marco Pistolesi

Pannello 23

Areal distribution and morphometric parameters of the monogenetic etnean cones

Maria Catania, Chiara Cappadonia, Carmelo Ferlito, Gabriele Lanzafame, Chiara Martinello, Mario Mattia

S03 - OBSERVATION AND MODELLING OF THE ATMOSPHERIC DISPERSION AND FALLOUT OF VOLCANIC PRODUCTS

Pannello 24

Characterization of volcanic ash from the Campanian Ignimbrite super-eruption: new insights into dispersion mechanisms and health hazard

Flaminia Gianchiglia, Biagio Giaccio, Alessandro Pacella, Paolo Ballirano, Danilo M. Palladino, Sebastien Nomade, Daniel Veres, Andreas Koutsodendris, Jörg Pross, Gianluca Sottili

Pannello 25

Understanding the impact of atmospheric conditions and turbulence on settling-driven gravitational instabilities (SDGIs) forming ash fingers

Riccardo Simionato, Jonathan Lemus, Carolina Diaz Vecino, Allan Fries, Simon Thivet, Jonas Latt, Costanza Bonadonna

Pannello 26

Characterisation of the eruption magnitude distribution during the last three Epochs of activity (□14 ky) of Campi Flegrei caldera (Italy)

Daniela Matias, Laura Sandri, Roberto Sulpizio, Silvia Massaro, Antonio Costa

Pannello 27

Model calibration and validation of carbon dioxide dispersion in the Atmospheric Surface Layer using data from La Solfatara crater (Campi Flegrei, Italy)

Silvia Massaro and SOLFATARA Team

Pannello 28

Proximal deposition from Etna paroxysmal eruptions: implications for TGSD assessment

Francesco Amadio, Laura Pioli, Simona Scollo

S04 - APPLICATIONS OF REMOTE SENSING TECHNOLOGY IN VOLCANO HAZARD MONITORING

Pannello 29

Volcanic activity classification through Semi-Supervised Learning applied to satellite radiance time series

Francesco Spina, Giuseppe Bilotta, Annalisa Cappello, Marco Spina, Francesco Zuccarello, Gaetana Ganci

Pannello 30

The permanent Thermal Infrared Surveillance ground Network of INGV-Osservatorio Vesuviano at Campi Flegrei caldera (Italy): two decades of observations

Fabio Sansivero, Giuseppe Vilaro

Pannello 31

Using remote sensing data to detect and map fires induced by volcanic activity: the case study of Stromboli during the 2019 summer

Francesca Iacono, Marina Bisson, Claudia Spinetti, Tom Kwasnitschka

Pannello 32

High resolution topographies from satellite data to reproduce secondary volcanic hazards at Stromboli: the case of gravity induced flows related to the 3rd July 2019 paroxysm

Roberto Gianardi, Marina Bisson, Claudia Spinetti, Mattia De' Michieli Vitturi

Pannello 33

High-Rate Real Time GNSS monitoring of active Italian volcanoes

Francesco Pandolfo, Valentina Bruno, Massimo Rossi, Mario Mattia, Prospero De Martino

Pannello 34

Recent updates of the lava flows of Mt Etna, Italy: the 1999 – June 2019 and July 2019 – December 2023 maps

Emanuela De Beni, Cristina Proietti, Massimo Cantarero

Pannello 35

A new TIR ground based system for volcanic cloud monitoring

Lorenzo Guerrieri, Stefano Corradini, Camilo Naranjo, Luca Merucci, Dario Stelitano

S05 - VOLCANOLOGY AND ARCHAEOLOGY: BRINGING THE WORLD OF PHYSICAL SCIENCES CLOSER TO THE HUMANITIES

Pannello 36

Catalogue of the Etna eruptive activity from the 6th century BC to present

Paola Del Carlo, Boris Behncke, Pietro Bonfanti, Stefano Branca

Pannello 37

The prehistoric obsidian of Lipari, Gabelotto and the so-called Pomiciazzo lava flow (Lipari, Aeolian Islands)

Marco Manni, Maria Clara Martinelli

Pannello 38

Toponyms dataset of Stromboli volcano

Paola Del Carlo, Antonella Bertagnini, Andrea Bevilacqua, Alessio Di Roberto, Patrizia Landi, Augusto Neri, Massimo Pompilio, Alessandro Tadini

Pannello 39

A multidisciplinary study for the recognition of fault-induced instability conditions on urban structures: the case of the 16th century AD St. Barbara's Church in Paternò (Sicily, Italy)

Gloria Maria Ristuccia, Pietro Bonfanti, Orazio Caruso, Salvatore Giammanco

Pannello 40

The Mazzola archaeological site of Ischia (Southern Italy): evidence of close relationships between humans and volcanism, on the border between hazard and resource

Francesco Nitti, Teresa Cinquantaquattro, Maria Luisa Tardugno, Sandro de Vita, Mauro Antonio Di Vito, Angela Mormone, Ilenia Arienzo, Carlo Pelullo, Monica Piochi, Germano Solomita

S06 - STROMBOLI VOLCANO AND ITS VARIABILITY IN ERUPTIVE INTENSITY: ADVANCES IN UNDERSTANDING ORIGINS AND IMPLICATIONS

Pannello 41

Airborne Single-Pass SAR Interferometry for Stromboli volcano monitoring

Carmen Esposito, Paolo Berardino, Alessandro Di Vincenzo, Antonio Natale, Riccardo Lanari, Jorge Andres Rosero Legarda, Stefano Perna

Pannello 42

Advancing volcano surveillance through soil gas monitoring: insights from Stromboli Island, Italy

Mirko Messina, Roberto Di Martino, Antonio Paonita

Pannello 43

Multitemporal UAV remote sensing surveys of volcano unstable flanks: the case of Stromboli

Teresa Gracchi, Teresa Nolesini, Guglielmo Rossi, Carlo Tacconi Stefanelli, Federico Di Traglia, Nicola Casagli

Pannello 44

Tsunamigenic landslides at Stromboli volcano over the millennia: a record from marine volcanoclastic turbidite sequences

Serena Da Mommio, Marija Voloschina, Omar Qatoni, Alessio Di Roberto, Mauro Rosi, Antonella Bertagnini, Armin Freundt, Steffen Kutterolf, Rosanna De Rosa, Marco Pistolesi

Pannello 45

The increased volatiles degassing at Stromboli Volcano inferred by the continuous soil CO₂ fluxes monitoring network

Fabio Vita, Claudio Inguaggiato, Agnes Mazot, Marco Corrao, Marianna Cangemi, Salvatore Inguaggiato

Pannello 46

Petrological monitoring of persistently active basaltic volcanoes: the case study of Stromboli (Aeolian Islands, Southern Italy)

Beatrice Schiavon, Chiara Maria Petrone, Francesca Forni, Alessio Pontesilli, Elisabetta Del Bello, Manuela Nazzari, Piergiorgio Scarlato, Massimo Tiepolo, Silvio Mollo, Haiyang Hu

S07 - FROM THE VOLCANO TO THE LABORATORY (AND BACK): INSIGHTS INTO MAGMATIC PROCESSES AND ERUPTION DYNAMICS THROUGH EXPERIMENTS, MODELING AND FIELD OBSERVATIONS

Pannello 47

X-ray microtomography and in-situ experiments as tools to investigate hydrothermal unrest conditions of phreatic events at Vulcano Island (Italy)

Alessia Falasconi, Gianmarco Buono, Lucia Pappalardo, Gianfilippo De Astis

Pannello 48

Deep vs shallow magmatic systems controlling pure Plinian vs caldera-forming eruptions: experimental evidence

Cristina Perinelli, Mario Gaeta, Alessandro Fabbrizio, Lorenzo Monaco, Raffaella Pavese, Danilo M. Palladino

Pannello 49

Continental crust experimental refining: exploring the deep storage zone of Campi Flegrei and Vesuvius magmas

Mario Gaeta, Flavia Palummo, Barbara Bonechi, Alessandro Fabbrizio, Valeria Misiti, Piergiorgio Scarlato, Cristina Perinelli

Pannello 50

Influence of acoustic wave dynamics in granular media: implications for volcanic infrasound analysis

Claudia Sánchez, Francesco Biagioli, Maurizio Ripepe

Pannello 51

The dynamics of explosive basaltic volcanism: insights from laboratory experiments, numerical modelling and field observations

Giuseppe La Spina, Jacopo Taddeucci, Laura Spina, Francesco Pennacchia, Piergiorgio Scarlato

Pannello 52

Magmatic degassing dynamics at Halema'uma'u Crater, Kilauea, Hawaii

Alessandro La Spina, Mike Burton, Bruce Houghton, Jeff Sutton

Pannello 53

Magma titanium and iron contents dictate crystallization timescales and rheological behaviour in basaltic volcanic systems

Fabrizio Di Fiore, Alessandro Vona, Danilo Di Genova, Alessio Pontesilli, Laura Calabrò, Silvio Mollo, Jacopo Taddeucci, Claudia Romano, Piergiorgio Scarlato

Pannello 54

A review of plagioclase growth rate and compositional evolution in mafic alkaline magmas: guidelines for thermometry, hygrometry, and timescales of magma dynamics at Stromboli and Mt. Etna

Piergiorgio Moschini, Silvio Mollo, Alessio Pontesilli, Manuela Nazzari, Chiara Maria Petrone, Sara Fanara, Alessandro Vona, Mario Gaeta, Claudia Romano, Piergiorgio Scarlato

Pannello 55

Understanding post-eruptive processes in lava-like ignimbrites of southwestern Sardinia

Martin Wolf, Ben Ellis

Pannello 56

A new viscosity model for Colli Albani: study and implications of nanolites formation in the melt

Emanuele Fanesi, Pedro Valdivia, Dmitry Bondar, Alexander Kurnosov, Serena Dominijanni, Alessandro Vona, Claudia Romano, Danilo Di Genova, Fabio Arzilli

Pannello 57

Rheological analysis of lahar interstitial fluids: the importance of the measurement protocol

Carla Tranquilino, Fabio Dioguardi, Luigi Gentile, Lizeth Caballero, Damiano Sarocchi, Pierfrancesco Dellino

Pannello 58

Crystallization of primary analcime in K-phonolites: experimental evidence

Raffaella Pavese, Lorenzo Monaco, Cristina Perinelli

Pannello 59

Magma differentiation in dynamic mush domains from the perspective of multivariate statistics: open- vs closed-system evolution

Alessio Pontesilli, Fabrizio Di Fiore, Piergiorgio Scarlato, Ben Ellis, Elisabetta Del Bello, Daniele Andronico, Jacopo Taddeucci, Marco Brenna, Olivier Bachmann, Silvio Mollo

Pannello 60

A new viscosity model for hydrous andesitic magmas: insights from Sakurajima volcano

Pedro Valdivia, Dmitry Bondar, Alexander Kurnosov, Tiziana Boffa Ballaran, Joachim Deubener, Jessica Löschmann

Pannello 61

Large-scale experimental investigations on debris flows in the Sarno area: exploring the influence of soil properties and moisture content on triggering processes

Letizia Pace, Domenico Capolongo, Giovanna Capparelli, Gabriele Clausi, Fabio Dioguardi, Roberto Sulpizio

Pannello 62

The Kencherra Ignimbrite (central main Ethiopian Rift): a case study for assessing emplacement mechanisms of high-grade, welded ignimbrites

Zara Franceschini, Raffaello Cioni, Alessandro Vona, Alex Scarani, Stéphane Scaillet, Federico Sani, Giacomo Corti, Bruno Scaillet, Gaëlle Prouteau, Abate Assan Melaku

Pannello 63

High-temperature Raman spectroscopy investigation of volcanic glasses

Dmitry Bondar, Aurelien Canizares, Pedro Valdivia, Alessio Zandonà, Mathieu Allix, Danilo Di Genova

Pannello 64

Impact of carbonate assimilation and deformation on Vesuvius phonotephrite rheology

Gabriele Giuliani, Fabrizio Di Fiore, Pedro Valdivia, Silvio Mollo, Chiara Maria Petrone, Claudia Romano, Manuela Nazzari, Alessandro Vona

Pannello 65

New viscosity data of volcanic melts

Serena Dominianni, Gabriele Giuliani, Pedro Valdivia, Dmitry Bondar, Fabrizio Di Fiore, Alessio Pontesilli, Alberto Caracciolo, Alessandro Vona, Claudia Romano, Danilo Di Genova

Pannello 66

Quantifying dissolution kinetics of clinopyroxene in hydrous basaltic magmas through 4D in situ experiments

Fabio Arzilli, Margherita Polacci, Giuseppe La Spina, Nolwenn Le Gall, Edward W. Llewellyn, Richard A. Brooker, Danilo Di Genova, Margaret E. Hartley, Rafael Torres-Orozco, Mike R. Burton

Pannello 67

The porosity and pore connectivity evolution of Vesuvius pyroclasts - a database

Knuever Marco, Daniela Mele, Roberto Sulpizio, Pierfrancesco Dellino

S08 - MULTI-HAZARD AND RISK ASSESSMENT IN VOLCANIC AREAS: MODELS, APPLICATIONS AND CHALLENGES

Pannello 68

Ensemble model-based reconstruction of the 3-5 December 2015 Etna eruption

Beatriz Martinez Montesinos, Leonardo Mingari, Matthieu Poret, Nicola Mari, Emanuele Caruso, Daniele Taje, Arnau Folch, Antonio Costa

Pannello 69

How does substrate affect the dynamics of volcanic granular flows: Towards small-to-large scale experiments and numerical simulations

Alexis Bougouin, Francesco Neglia, Damiano Sarocchi, Giovanna Capparelli, Eugenio Nicotra, Roberto Sulpizio, Fabio Dioguardi

Pannello 70

A probabilistic volcanic risk evaluation for the eastern flank of Mt. Etna

Fabrizio Meroni, Vera Pessina, Elisa Varini, Marina Longoni, Alexander Garcia, Laura Sandri

Pannello 71

2.5D Shallow water model for lava flows

Elisa Biagioli, Mattia de' Michieli Vitturi, Fabio Di Benedetto, Margherita Polacci

S09 - PLUMBING SYSTEM AND VOLCANO DYNAMICS: PETROLOGIC TOOLS FOR TRACKING MAGMAS FROM STORAGE TO ERUPTION

Pannello 72

Exploring the geochemistry of tholeiitic basalts and hyaloclastites formed in submarine volcanoes for comparison with Venus lavas

Nicola Mari, Piero D'Incecco, Justin Filiberto, Stefano Branca, Carmelo Monaco, David Trang, Ivan López, James Garvin, Noam Izenberg

Pannello 73

Trace elements zoning in olivine crystals unveils short-term volcanic processes controlling the 2020-22 lava fountaining at Mt. Etna

Massimiliano Cardone, Maurizio Petrelli, Marco Viccaro

Pannello 74

The 2021 eruption of Pacaya volcano (Guatemala): timescales of storage and transport as revealed by olivine zoning

Giorgio Costa, Massimiliano Cardone, Marisa Giuffrida, Marco Viccaro

Pannello 75

Magma storage and transfer before the 2021 eruption at Pacaya volcano (Guatemala) as revealed by plagioclase textural and compositional variations

Antonino Chindemi, Massimiliano Cardone, Giorgio Costa, Marisa Giuffrida, Roberto Visalli, Marco Viccaro

Pannello 76

Understanding a volcano from inception to death: case study of Aegina volcano, Greece

Michelle Müller, Olivier Bachmann, Razvan-Gabriel Popa

Pannello 77

Matching crystal chemistry with geochemical and geophysical monitoring signals to track the 2022-23 magma dynamics at Etna

Alessandro Miggiano, Andrea Cannata, Giuseppe Di Grazia, Marisa Giuffrida, Giuseppe Salerno, Marco Viccaro

Pannello 78

Quantitative X-ray image analysis for unraveling chemical and textural features of plagioclase crystals from volcanic rocks of the Marsili seamount

Roberto Visalli, Marisa Giuffrida, Michael Marani, Eugenio Nicotra, Gaetano Ortolano, Teresa Trua, Marco Viccaro

Pannello 79

The volcanic activity at Yali Island, Greece: plumbing system architecture and implication for hazard assessment

Eleonora Braschi, Georges E. Vougioukalakis, Lorella Francalanci

Pannello 80

How do mafic feeding dikes interact with carbonate host-rock? - insights from the Taverna San Felice dike intrusion (Roccamonfina, Italy)

Marco Knuever, Jacopo Natale, Federico Lucci, Guido Giordano, Stefano Vitale, Daniela Mele, Roberto Sulpizio

Pannello 81

Decoding magma dynamics: crystal zoning insights for volcanic hazard assessment.

Emanuele Caruso, Roberto Sulpizio, Antonio Costa, Silvia Massaro, Maurizio Petrelli, Giulia Fisauli.

Pannello 82

Geochemistry and petrology of the Bellecombe lava sequence at Enclos Fouqué caldera, Piton de la Fournaise volcano (Réunion, France)

Alexander Bolam, Gabriele Lanzafame, Andrea Di Muro, Silvia Portale, Sandro Donato, Pascale Besson, Carmelo Ferlito

Pannello 83

Experimental constraints on the pre-eruptive conditions of the Caxias do Sul dacite: implications for high temperature silicic volcanism of the Paraná Magmatic Province, Brazil

Emily C. Bamber

Pannello 84

Petrogenesis of the peralkaline Golja Ignimbrite (Main Ethiopian Rift)

Federica Langone, Riccardo Avanzinelli, Eleonora Braschi, Zara Franceschini, Francesca Forni, Raffaello Cioni

Pannello 85

Timing of magma-carbonate interaction before the 3950 yr BP Avellino eruption (Somma-Vesuvius, Southern Italy)

Jörn-Frederik Wotzlaw, Francesca Forni, Marcel Guillong, Roberto Sulpizio, Olivier Bachmann

Pannello 86

Timing and evolution of rhyolitic magmatism on Lipari

Dawid Szymanowski, Gabriel Rojas, Francesca Forni, Federico Lucchi, Claudio A. Tranne, Olivier Bachmann

S10 - VOLCANIC RISK MANAGEMENT: LESSONS LEARNT AND OPEN QUESTIONS FROM RECENT VOLCANIC CRISES

Pannello 87

Risk reduction measures related to bradyseism in the densely populated area of Campi Flegrei

Antonio Ricciardi, DPC Campi Flegrei Team

Pannello 88

Volcanic risk policies at global, European and national scale: state of the art, gaps and challenges

Chiara Cardaci, Daniela Di Bucci, Domenico Mangione, Antonio Ricciardi

S11 - PROBING ARCHITECTURES AND TIMESCALES OF VOLCANIC PLUMBING SYSTEMS BY MULTIDISCIPLINARY APPROACHES AND ADVANCED METHODOLOGIES

Pannello 89

Long-term precursors to large explosive eruptions of Vesuvius: evidence from the opening phase of the Avellino Plinian eruption

Alessia Falasconi, Chiara Maria Petrone, Roberto Sulpizio, Raffaello Cioni

Pannello 90

Deciphering time scales of pre-eruptive mixing at Stromboli volcano: insights from plagioclase dissolution-reaction experiments

Matteo Masotta, Fabio Colle, Simone Costa, Patrizia Landi

Pannello 91

LA-ICP-MS analyses of trace elements in groundmass glasses as a tool for petrological monitoring of magmatic processes: the time series of Dec 2020-Feb 2022 lava fountains at Etna

Simone Costa, Claudia D'Oriano, Rosa Anna Corsaro, Maurizio Petrelli, Lucia Miraglia

Pannello 92

Exploring the magmatic plumbing system of the Arcuentu volcanic complex through the study of Monte Nureci intrusion (Sardinia, Italy)

Bruna Cariddi, Vincenza Guarino, Luca Giacomo Costamagna, Massimo D'Antonio, Luigi Franciosi, Fred Jourdan, Roberto Lonis, Vincenzo Morra

Pannello 93

Exploring microstructure and petrophysical properties of porous volcanic rocks through 3D multiscale and super-resolution imaging

Gianmarco Buono, Stefano Caliro, Giovanni Macedonio, Vincenzo Allocca, Federico Gamba, Lucia Pappalardo

Pannello 94

Pre-eruptive crystallization conditions preserved in zoning pattern of clinopyroxenes from the vesuvian 1631 CE sub-Plinian eruption

Rebecca Cavallera and the Volcanology Team of University of Camerino, Carlo Pelullo and the INGV, OV Team, H el ene Balcone-Boissard, Sumit Chakraborty, Paola Petrosino, Nicolas Rividi, Vittorio Zanon

Pannello 95

Understanding eruptive dynamics of Ischia's trachytic magmas, from shallow reservoir conditions to explosive and effusive eruptions

Lo c Maingault, Carlo Pelullo, H el ene Balcone-Boissard, Sumit Chakraborty, Sandro de Vita, Fabio Sansivero, Ilenia Arienzo, Fabio Arzilli

Pannello 96

Machine Learning in petrological and volcanological investigations: state of the art and perspectives

Maurizio Petrelli

Pannello 97

The shear strain rate effects on crystallization dynamics and residual glass composition: implications for the chemical evolution in natural volcanic systems

Alessandro Musu, Luca Caricchi, Francesco Vetere, Thomas Griffiths, Maurizio Petrelli, Rosa Anna Corsaro, Stefano Peres, Diego Perugini

Pannello 98

Deciphering the Holocene magmatic plumbing system dynamics beneath El Hierro (Canary Islands)

Claudia Prieto-Torrell, Meritxell Aulinas, Helena Albert, Alejandro Rodriguez-Gonzalez, Ilenia Arienzo, Guillem Gisbert, Eloi Gonz alez-Esvertit, Valentin R. Troll, Jose-Luis Fernandez-Turiel, Francisco-Jose Perez-Torrado

S12 - REVEALING THE DYNAMICS OF OPEN-VENT VOLCANIC EXPLOSIVE ACTIVITY: A COMPREHENSIVE JOURNEY FROM MAGMA ASCENT TO ASH GENERATION

Pannello 99

Generation of deposit-derived pyroclastic density currents by the failure of the crater rim on Stromboli volcano

Federico Di Traglia, Paolo Berardino, Lorenzo Borselli, Pierfrancesco Calabria, Sonia Calvari, Daniele Casalbore, Nicola Casagli, Francesco Casu, Francesco Latino Chiocci, Riccardo Civico, Walter De Cesare, Claudio De Luca, Matteo Del Soldato, Antonietta Esposito, Carmen Esposito, Massimiliano Favalli, Alessandro Fornaciai, Flora Giudicepietro, Teresa Gracchi, Riccardo Lanari, Giovanni Macedonio, Fernando

Monterroso, Antonio Natale, Teresa Nolesini, Stefano Perna, Tullio Ricci, Claudia Romagnoli, Guglielmo Rossi, Carlo Tacconi Stefanelli

Pannello 100

Characterization of pyroclast in-flight fragmentation at mafic volcanoes

Clothilde Biensan, Jacopo Taddeucci, Piergiorgio Scarlato, Daniele Andronico, Elisabetta Del Bello, Tullio Ricci, Luca D'Auria, Maria Asensio-Ramos, Danilo Palladino

Pannello 101

Pyroclastic density currents at Mount Etna: investigating triggering mechanisms and emplacement dynamics

Giorgio Costa, Boris Behncke, Marco Viccaro

Pannello 102

Understanding the dynamics of explosive volcanoes by investigating volcanic thermal emissions using MODIS Land Surface Temperature data

Arianna Beatrice Malaguti, Claudia Corradino, Micheal S. Ramsey, Ciro Del Negro

Pannello 103

Quantifying volcanic SO₂ emissions with Sentinel-5 TROPOMI, Artificial Intelligence and GEE

Alessandro La Spina, Claudia Corradino, Paul Jouve, Ciro Del Negro

S13 - LINKING SURFACE OBSERVABLES TO SUB-VOLCANIC PLUMBING SYSTEMS AT ACTIVE CALDERAS

Pannello 104

Detection of a ground deformation anomaly at Campi Flegrei during the 2021-2024 unrest phase, revealed by DInSAR and GNSS measurements

Flora Giudicepietro, Team INGV-CNR

Pannello 105

Exploring Degassing and Crystallization processes in magmatic ascent: the case study of the western sector of the Campi Flegrei Caldera

Carolina Baccari, Gianmarco Buono, Mauro Antonio Di Vito, Lucia Pappalardo, Paola Petrosino

Pannello 106

New Insights into the Recent Magma Dynamics Under Campi Flegrei Caldera (Italy) from petrological and geochemical evidence

Gianmarco Buono, Stefano Caliro, Antonio Paonita, Lucia Pappalardo, Anna Tramelli, Giovanni Chiodini

Pannello 107

Effusive eruptions at Campi Flegrei: petrological characterizations and emplacement mechanisms of Mt. Olibano and Accademia lava domes/flows

Pooria Ebrahimi, Daniele Morgavi, Fabio Arzilli, Fabrizio Di Fiore, Paola Petrosino

Pannello 108

Radionuclides behavior in hydrothermal volcanic systems: Preliminary investigations at high and low gas flux emission sites

Giordano Bufi, Silvia Massaro, Francesco Giordano, Pierfrancesco Dellino, Silvia Rainò, Fabio Dioguardi, Francesco Rufino, Stefano Caliro, Alessandro Aiuppa, Simone Lentini, Angelo Vitale, Antonio Costa, Roberto Sulpizio

Pannello 109

Intrusive bodies controlling the unrest in Campi Flegrei

Anna Tramelli, Marco Calò

Pannello 110

Statistical analyses on groundwater compositional data from Campi Flegrei caldera wells

Zaccaria Petrillo, Sergio Scippacercola, Simona Tripaldi, Annarita Mangiacapra, Stefano Caliro

S14 - HYDROTHERMAL ALTERATION IN ACTIVE AND EXTINCT VOLCANIC SYSTEMS: INTEGRATED APPROACH, OUTCOMES AND PERSPECTIVES

Pannello 111

Copper sulfates of fumarolic environment from Vesuvius volcano (Southern Italy)

Giuseppina Balassone, Vesuvius Sulfates Research Group, Annamaria Pellino, Angela Altomare, Fabio Bellatreccia, Piergiulio Cappelletti, Aurelia Falcicchio, Richard Herrington, Nicola Mondillo, Carmela Petti, Concetta Rispoli, Mike Rumsey

Pannello 112

Study of hydrothermal alteration paragenesis of lithic clasts of the Solfatara eruption deposits (Campi Flegrei, Italy)

Marco Masi, Paolo Fulignati, Paola Marianelli, Marco Pistolesi, Antonella Bertagnini, Roberto Isaia

Pannello 113

The hydrothermal system prior to the 1873 phreatic eruption at La Fossa di Vulcano (Vulcano Island, Italy): first insights from a petrographic and geochemical approach

Silvia Giansante, Anna Gioncada, Paolo Fulignati, Raffaello Cioni, Marco Pistolesi, Tomaso Esposti Ongaro

Pannello 114

Combining Rn and Sr isotopes measurement to track fluid-rock interaction at the active Campi Flegrei volcano: a framework study

Raffaella Silvia Iovine, Bruna Cariddi, Ilenia Arienzo, Monica Piochi

Pannello 115

Inferences from plants studies and environmental radioactivity at the Macalube natural reserve (Ag)

Zahra Alizadeh, Emanuele Rosa, Paola Cusano, Nunziatina De Tommasi, Alessandra Braca, Marinella De Leo, Simona Mancini, Paolo Madonia, Mariarosaria Falanga

S15 - A MULTIDISCIPLINARY VISION OF THE OBSERVATIONS AND EXPERIMENTATION FOR VOLCANOES MONITORING

Pannello 116

Advanced SHM Techniques for aerospace structures: potential applications in volcanology

Michele Meo

Pannello 117

A temporary seismic network to study the seismicity of Pantelleria Island

Lucia Nardone, Simona Carannante, Ezio D'Alema, Alessandro Di Filippo, Roberta Esposito, Danilo Galluzzo, Guido Gaudiosi, Francesco Liguoro, Roberto Manzo

Pannello 118

Multiparametric exploration of active magma degassing at Mt. Etna in 2023

Clothilde Biensan, Jacopo Taddeucci, Tullio Ricci, Elisabetta Del Bello, Piergiorgio Scarlato, Danilo Palladino

Pannello 119

The central-southern Aeolian islands: volcanism and tearing in the Tyrrhenian subduction system (CAVEAT)

Andrea Ursino, Antonio Scaltrito and the CAVEAT Team

Pannello 120

The Pernicana Fault System (Mt. Etna; Sicily): 4 decades of ground deformations studies and inferences to flank and magma dynamics

Alessandro Bonforte, Stefano Branca, Giuseppe Brandi, Elena Cubellis, Salvatore Gambino, Francesco Guglielmino, Francesco Obrizzo, Giuseppe Puglisi, Laura Privitera, Umberto Tammaro

Pannello 121

Present-day ground deformation of Colli Albani volcanic district from the analysis of remotely sensed data

Lisa Beccaro, Claudia Spinetti, Cristiano Tolomei, Roberto Gianardi, Marina Bisson, Alessandro Galvani, Laura Colini, Vincenzo Sepe

Pannello 122

Vertical movements and seismic activity at Campi Flegrei Caldera (South Italy)

Eliana Bellucci Sessa, Girolamo Milano

Pannello 123

Use of signal distortion as indicator of volcanic activity: a practical implementation exploring the gravity data acquired at Etna volcano

Lorenzo Ferri, Filippo Greco, Giuseppe Nunnari, Daniele Carbone

Pannello 124

2021 Etna's paroxysmal activity: inference on the dynamics of the magmatic feeding system from joint DInSAR and GNSS ground deformation analysis

Alejandra Vásquez Castillo, Francesco Guglielmino, Alessandro Bonforte, Giuseppe Puglisi

Pannello 125

The 2021 unusual deep seismicity recorded on the eastern flank of Mt. Etna volcano (Italy): regional tectonic or intrusive processes?

Salvatore Alparone, Graziella Barberi, Flavio Cannavò, Vittorio Minio, Marco Neri, Andrea Ursino

Pannello 126

25 years recording of the long-base fluid tiltmeter installed at 2.850 m a.s.l. observatory of Pizzi Deneri on Etna volcano

Alessandro Bonaccorso, Giuseppe Falzone, Angelo Ferro, Salvatore Gambino, Giuseppe Laudani, Laura Privitera

Pannello 127

Vulcano Island and its activity reconstructed through the analysis of ground deformations recorded in the last 50 years, to better understand the 2021-2022 volcanic unrest

Laura Privitera, Alessandro Bonforte, Salvatore Gambino, Francesco Guglielmino

S16 - MULTIDISCIPLINARY APPROACH FOR UNDERSTANDING OF MAGMATIC SYSTEMS, VOLCANO-TECTONIC STRUCTURES AND THEIR INTERPLAY IN VOLCANO DYNAMIC EVOLUTION

Pannello 128

Control of gravitational potential energy on the distribution of off-axis volcanic activity in the Turkana Depression, East African Rift

Giacomo Corti, Ameha Muluneh, Derek Keir, Ilaria Isola, Francesco Mazzarini

Pannello 129

Gravity survey of Pantelleria Island (Southern Italy) for geothermal exploration

Lorenzo Ricciardi, Giovanni Florio, Stefano Carlino, Tommaso Pivetta, Umberto Ricciardi, Giuseppe Ferrara, Luigi Zampa

Pannello 130

Multiparametric clustering of synchronous seismic, acoustic, and thermal events at Mt. Etna in 2023

Joe Carthy, Improve Team, Sergio Díaz-Mesa, Elisabetta Del Bello, Piergiorgio Scarlato, Danilo M. Palladino

Pannello 131

Analysis of the seismo-volcanic signals during the 2021-2022 volcanic unrest at Vulcano island

Adriana Iozzia, Salvatore Alparone, Andrea Cannata, Simone Cesca, Martina Criscillo, Giuseppe Di Grazia, Mariangela Sciotto