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S01.38 - The contribution of experimental and numerical investigations of eruptive processes for improving hazard assessment at volcanoes

Time	ID	Title	Author Name	Affiliations	Presenter Name
14.30 - 14.45	1079	Clinopyroxene sector zoning revisited: magma mixing vs. kinetic effects	Teresa Ubide (1) Silvio Mollo (2,3) Jonathan D. Blundy (4) Jian-xin Zhao (1) Manuela Nazzari (3) Piergiorgio Scarlato (3)	(1) The University of Queensland (2) Sapienza University of Rome (3) INGV Rome (4) University of Bristol	Teresa Ubide
14.45 - 15.00	902	Constraining thermo-rheological properties of lava: from lab and field experiments to applications for modeling	Magdalena Oryaëlle Chevrel (1) Andrew Harris (1) Mike James (2) Harry Pinkerton (2) Scott Rowland (3) Lucia Gurioli (1) Laura Calabro (1) Jérémie Labroquère (4)	(1) Université Clermont Auvergne, CNRS, IRD, OPGC, Laboratoire Magmas et Volcans, F-63000 Clermont-Ferrand, France (2) Lancaster Environment Centre, Lancaster University, Lancaster LA1 4YQ, United Kingdom (3) Department of Geology and Geophysics, University of Hawai'i at Manoa, Honolulu, HI, USA (4) Private Work. Formally Working at THALES SERVICES SAS, 290 Allee du Lac, 31670 Labège, France	Magdalena Chevrel (Invited)
15.00 - 15.15	687	Pores vs. bubbles: a rheological study	Stefania Sicola (1) Alessandro Vona (1) Claudia Romano (1) Amy G. Ryan (2) James K. Russell (2)	(1) Sezione di Scienze Geologiche, Università "Roma Tre", Largo S. Leonardo Murialdo 1, 00146, Roma, Italy (2) Earth, Ocean and Atmospheric Sciences, University of British Columbia, Vancouver, Canada	Stefania Sicola
15.15 - 15.30	295	The integration of fieldwork, experiments and modelling towards the next generation of volcanic hazard quantification tools	Fabio Dioguardi (1) Pierfrancesco Dellino (2) Daniela Mele (2) Domenico Maria Doronzo (3)	(1) British Geological Survey, The Lyell Centre, Edinburgh, United Kingdom (2) Università degli Studi di Bari "Aldo Moro", Dipartimento di Scienze della Terra e Geoambientali, Bari, Italy (3) Institut de Ciències de la Terra Jaume Almera, Barcelona, Spain	Fabio Dioguardi (Invited)
15.30 - 15.45	1036	Shock-tube investigation on jet development and pyroclast acceleration during transient explosive eruptions.	Jacopo Taddeucci (1) Valentino Salvatore (2) Valeria Cigala (3) Damien Gaudin (3) Juan José Peña-Fernandez (4) Alejandra Arciniega-Ceballos (5) Ulrich Kueppers (3) Danilo M. Palladino (2) Joern Sesterhenn (4)	(1) Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy (2) "Sapienza" Università di Roma, Rome, Italy (3) Ludwig-Maximilians-Universität München (LMU), Munich, Germany (4) Technical University, Berlin, Germany (5) Universidad Autónoma de México, Mexico City, Mexico	Jacopo Taddeucci
15.45 - 16.00	143	Thermal regime of column collapses and controls on initial temperature of pyroclastic density currents	Matteo Trolese (1) Matteo Cerminara (2) Tomaso Esposti Ongaro (2) Guido Giordano (1)	(1) Dipartimento di Scienze, Sezione di Geologia, Università degli Studi Roma Tre, L.go S. Leonardo Murialdo 1, 00146 Roma, Italy (2) Istituto Nazionale di Geofisica e Vulcanologia, Sezione di Pisa, Via della Faggiola 32, 56126 Pisa, Italy	Matteo Trolese
16.00 - 16.15	886	Rates of volcanic ash production in pyroclastic density currents	Raffaello Cioni (1) Caludia d'Oriano (2) Filippo Mundula (3) Antonella Bertagnini (2)	(1) Dipartimento Scienze Terra, Università di Firenze, Italy (2) Istituto Nazionale di Geofisica e Vulcanologia, sez. Pisa, Italy (3) Dip.to Scienze Chimiche e Geologiche, Università di Cagliari, Italy	Raffaello Cioni
16.15 - 16.30	480	Death by a thousand perils - spontaneous oscillations in pyroclastic surges control their hazard impact and sedimentation dynamics	Ermanno Brosch (1) Gert Lube (1) Matteo Cerminara (2) Eric Breard (3) Tomaso Esposti Ongaro (2)	(1) Volcanic Risk Solutions, Massey University, Palmerston North, New Zealand (2) Istituto Nazionale di Geofisica e Vulcanologia, Section of Pisa, Pisa, Italy (3) Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA, USA	Ermanno Brosch

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Position	ID	Title	Author Name	Affiliations	Presenter Name
06 - 107.	460	Crystallization of dacitic rocks of the Paraná Magmatic Province: A comparative approach based on natural and experimental products	Serena Pia De Cristofaro (1) Daniele Giordano (1) Liza Polo (2) Valdecir de Assis Janasi (2) Silvio Vlach (2)	(1) Department of Earth Sciences University of Torino, Via Valperga Caluso 35, Italy (2) Institute of Geosciences, University of Sao Paulo, Rua do Lago, 562, Cidade Universitaria, 05508-080 Sao Paulo, Brasil	Serena Pia De Cristofaro
06 - 108.	258	Olivine compositional changes in primitive skarn environments: A reassessment of divalent cation partitioning models to quantify the effect of carbonate assimilation	Flavio Di Stefano (1) Silvio Mollo (1,2) Piergiorgio Scarlato (2) Manuela Nazzari (1,2) Olivier Bachmann (3) Marco Caruso (1)	(1) Dipartimento di Scienze della Terra, Sapienza-Università di Roma, Rome, Italy (2) Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy (3) Department of Earth Sciences, Institute of Geochemistry and Petrology, ETH, Zurich, Switzerland	Flavio Di stefano
06 - 109.	273	Modeling the crystallization and emplacement conditions of a basaltic trachyandesitic sill at Mt. Etna volcano	Manuela Nazzari (1,2) Flavio Di Stefano (1) Silvio Mollo (1,2) Piergiorgio Scarlato (2) Vanni Tecchiato (1) Ben Ellis (3) Olivier Bachmann (3) Carmelo Ferlito (4)	(1) Dipartimento di Scienze della Terra, Sapienza-Università di Roma, Rome, Italy (2) Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy (3) Department of Earth Sciences, Institute of Geochemistry and Petrology, ETH, Zurich, Switzerland (4) Department of Biological, Geological and Environmental Sciences, University of Catania, Catania, Italy	Manuela Nazzari
06 - 110.	543	Solid-state sintering contributes to cyclical explosive activity at dome-producing volcanoes	Amy Ryan(1) J. K. Russell(1) Michael Heap(2)	(1) University of British Columbia (2) University of Strasbourg	Kelly Russell
06 - 111.	546	FOAMGLAS®: An ideal proxy for natural magmatic foams	Amy Ryan(1) Michael Heap(2) Stephan Kolzenburg(3) Alessandro Vona(4) J. K. Russell(1)	(1) University of British Columbia (2) University of Strasbourg (3) McGill University (4) Università degli Studi Roma Tre	Kelly Russell
06 - 112.	958	Development and validation of MagmaFOAM for the simulation of magmatic systems	Federico Brogi (1,2) Simone Colucci (2) Chiara Montagna (2) Mattia de' Michieli Vitturi (2) Paolo Papale (2)	(1) OGS, Italy (2) INGV Pisa, Italy	Federico Brogi
06 - 113.	433	Influence of extrusion rate and conduit flow mechanics on magma rheology and the growth style of lava domes: Insights from particle-dynamics modeling	Taha Husain (1) Derek Elsworth (1) Barry Voight (2) Glen Mattioli (3,4) Pamela Jansma (3,5)	(1) Energy and Mineral Engineering, G3 Center and EMS Energy Institute, The Pennsylvania State University, University Park, PA 16802, USA (2) Geosciences, The Pennsylvania State University, University Park, PA 16802, USA (3) Earth and Environmental Sciences, University of Texas at Arlington, Arlington, TX 76019, USA (4) UNAVCO, Inc., 6350 Nautilus Drive, Denver, CO, 80301, USA (5) College of Liberal Arts and Sciences and Geography and Environmental Sciences, University of Colorado Denver, Denver, CO 80217, USA	Glen Mattioli
06 - 114.	498	From pyroclasts to lava flow: rheology of a clastogenic lava	Alessandro Frontoni (1) Alessandro Vona (1) Guido Giordano (1) Marco Viccaro (2) Claudia Romano (1)	(1) Dipartimento di Scienze, Università degli Studi Roma Tre, L.go San Leonardo Murialdo 1, 00146 Roma, Italy (2) Dipartimento di Scienze Biologiche Geologiche e Ambientali, Università di Catania, Corso Italia 57, 95129 Catania, Italy	Alessandro Frontoni
06 - 115.	1182	Towards A Structural Model for the Viscosity of Geological Melts	Daniele Giordano	Earth Sciences Department - University of Torino	Daniele Giordano
06 - 116.	496	An experimental approach to investigate seismo-acoustic markers of degassing patterns	Laura Spina (1), Daniele Morgavi (1), Andrea Cannata (1), Carlo Campeggi (1), Diego Perugini (1)	(1) Department of Physics and Geology, University of Perugia	Laura Spina
06 - 117.	989	Effects of componentry, size and initial depth on particle acceleration within volcanic conduits	Cristian Montanaro (1) Bettina Scheu (2) Joali Paredes (3) Alejandra Arciniaga (4) Diego Perugini (3) Donald B Dingwell (2)	(1) British Geological Survey, The Lyell Centre, Edinburgh, United Kingdom (2) Università degli Studi di Bari "Aldo Moro", Dipartimento di Scienze della Terra e Geoambientali, Bari, Italy	Cristian Montanaro
06 - 118.	294	The influence of particle shape on the aerodynamics of volcanic particles: a new drag law and application to ash dispersal models.	Fabio Dioguardi (1) Daniela Mele (2) Pierfrancesco Dellino (2)	(1) British Geological Survey, The Lyell Centre, Edinburgh, United Kingdom (2) Università degli Studi di Bari "Aldo Moro", Dipartimento di Scienze della Terra e Geoambientali, Bari, Italy	Fabio Dioguardi
06 - 119.	506	A comprehensive approach for the investigation of ash aggregation in volcanic plumes	Eduardo Rossi (1) Stefano Pollastri (1) Costanza Bonadonna (1)	(1) Department of Earth Sciences, University of Geneva	Eduardo Rossi
06 - 120.	930	Impact of dissolved fluorine on surface tension of hydrous rhyolite	Simone Colucci (1)	(1) INGV, sezione di Pisa	Simone Colucci
06 - 121.	315	Combining numerical and experimental modelling to constrain the surge formation mechanism	Valentin Gueugneau (1) Karim Kelfoun (1)	(1) Laboratoire Magmas et Volcans, Université Clermont Auvergne - CNRS - IRD, OPGC, Campus Universitaire des Cézeaux, 6 Avenue Blaise Pascal, 63178 Aubière Cedex	GUEUGNEAU Valentin
06 - 122.	261	Experimental Study of vertical partial block effects on dilute pyroclastic density currents	Zhengquan Chen Jiandong Xu Haiquan Wei	Key Laboratory of Active Tectonics and Volcano, Institute of Geology, China Earthquake Administration, Beijing 100029, China	Zhengquan Chen
06 - 123.	791	The characteristics and consequences of turbulence in dilute pyroclastic density currents	Gert Lube (1) Matteo Cerminara (2) Ermanno Brosch (1) Eric Breard (3) Tomaso Esposti-Ongaro (2) Jim Jones (1)	(1) Volcanic Risk Solutions, Massey University (2) INGV (3) University of Oregon	Gert Lube
06 - 124.	272	Pyroclasts cooling through infrared thermography: the Agnano Monte Spina and Pollena cases of study	Aurora Silleni (1) Alex Scarani (1) Guido Giordano (1) Alessandro Vona (1) Claudia Romano (1)	(1) Dipartimento di Scienze, Sezione di Scienze Geologiche, Università "Roma Tre", Largo San Leonardo Murialdo 1, 00146 Roma, Italy	Aurora Silleni
06 - 125.	829	Storage region controls on dike propagation and the location of future eruptions	Stephen Pansino (1), Benoit Taisne (1)	(1) Nanyang Technological University/ Earth Observatory of Singapore	Stephen Pansino