

**Istituto Nazionale di Geofisica e Vulcanologia**

**Sezione di Napoli – Osservatorio Vesuviano**

## **Elenco delle pubblicazioni 2020**

A cura di Elena Cubellis

[elena.cubellis@ingv.it](mailto:elena.cubellis@ingv.it)

Napoli, 15.03.2022

## Pubblicazioni su riviste JCR

- Arienzo I, Rucco I, Di Vito MA, D'Antonio M, Cesarano M, Carandente A (2020). *Sr isotopic composition as a tool for unravelling human mobility in the Campania area*. *Archaeological and Anthropological Sciences* (2020) 12:157, <https://doi.org/10.1007/s12520-020-01088-0>
- Arienzo, I., Liotta, M., Brusca, L., D'Antonio, M., Lupone F., Cucciniello, C. (2020). *Analytical method for lithium isotopes determination by thermal ionization mass spectrometry: A useful tool for hydrogeochemical applications*. *Water*, 12(8), 2182
- Arnos Jose, Umberto Riccardi, Maite Benavent, Umberto Tammaro, Fuensanta G. Montesinos, Isabel Blanco-Montenegro, Emilio Vélez, (2020). *Strain Pattern and Kinematics of the Canary Islands from GNSS Time Series Analysis*. *Remote Sens.* 2020, 12, 3297, doi: 10.3390/rs12203297.
- Baquero D P, Contursi P, Piochi M, Bartolucci S, Liu Y, Cvirkaite-Krupovic V, Prangishvili D, Krupovic M (2020). *New virus isolates from Italian hydrothermal environments underscore the biogeographic pattern in archaeal virus communities*. *bioRxiv*, doi.org/10.1101/2020.01.16.907410.
- Bagnato, E., Tamburello G., Granieri D., Caliro S., D'Agostino F., Avino R., Capecchiacci F., Carandente A., D'Alessandro A., Minopoli C., Santi A., Bitetto M., Oliveri E. (2020). *First simultaneous mercury and major volatiles characterization of atmospheric hydrothermal emissions at the Pisciarelli's fumarolic system (Campi Flegrei, Italy)*. *Journal of Volcanology and Geothermal Research*, 406, 107074, <https://doi.org/10.1016/j.jvolgeores.2020.107074>.
- Baquero D, Contursi P, Piochi M, Bartolucci S, Liu Y, Krupovic VC, Prangishvili D, Krupovic D (2020). *New virus isolates from Italian hydrothermal environments underscore the biogeographic pattern in archaeal virus communities*. *Multidisciplinary Journal of Microbial Ecology, The ISME Journal*, 1-13, doi.org/10.1038/s41396-020-0653-z.
- Bello Simone, Rita De Nardis, Roberto Scarpa, Francesco Brozzetti, Daniele Cirillo, Federica Ferrarini, Bellina di Lieto, Ramon Arrowsmith, Giusy Lavecchia (2020). *Fault pattern and seismotectonic style of the Campania–Lucania 1980 earthquake (Mw 6.9, Southern Italy): new multidisciplinary constraints*. *Frontiers in Earth Science*, 8, 652. doi: 10.3389/feart.2020.608063
- Berrino G. (2020). *The state of the art of gravimetry in Italy*. *Rendiconti Lincei Scienze Fisiche e Naturali, Special Issue “Earth’s gravity field and Earth sciences”*, doi: 10.1007/s12210-020-00924-8.
- Berrino G., Ricciardi G. (2020). *Repeated absolute gravity measurements on a dense network at Campi Flegrei – a reliable tool for volcano monitoring*. *Adv. Geosci.*, 52, 41–54, <https://doi.org/10.5194/adgeo-52-41-2020>, Special Issue: Understanding volcanic processes through geophysical and volcanological data investigations: some case studies from Italian sites (EGU2019 GMPV5.11 session, COV10 S01.11session).
- Bevilacqua A., Neri A., De Martino P., Isaia R., Novellino A., Tramparulo F. DA., Vitale S., (2020). *Radial interpolation of GPS and leveling data of ground deformation in a resurgent caldera: application to Campi Flegrei (Italy)*. *Journal of Geodesy*, 94 (24), DOI:10.1007/s00190-020-01355-x
- Boudoire G. , Rizzo A. L., Arienzo I., Di Muro A. (2020). *Paroxysmal eruptions tracked by variations of helium isotopes: inferences from Piton de la Fournaise (La Réunion island)*. *Scientific Reports*, 10:9809 <https://doi.org/10.1038/s41598-020-66260-x>
- Buono G., Fanara S., Macedonio G., Palladino D.M., Petrosino P., Sottili G., Pappalardo L., (2020). *Dynamics of degassing in evolved alkaline magmas: petrological, experimental and theoretical insights*, *Earth-Science Reviews*, 211, 103402, doi:10.1016/j.earscirev.2020.103402, 2020.
- Buono, G., Pappalardo, L., Harris, C., Edwards, B. R., & Petrosino, P. (2020). *Magmatic stoping during the caldera-forming Pomici di Base eruption (Somma-Vesuvius, Italy) as a fuel of eruption explosivity*. *Lithos*, 370–371. <https://doi.org/10.1016/j.lithos.2020.105628>
- Buono G., Pappalardo L., Petrosino P. (2020). *Magma storage and ascent during the largest eruption of Somma-Vesuvius volcano: Pomici di Base (22 ka) Plinian event*. *BGTA*, 61 (1), 23-40. DOI 10.4430/bgta0294
- Calvari S., Di Traglia F., Ganci G., Giudicepietro F., Macedonio G., Cappello A., Nolesini T., Pecora E., Bilotta G., Centorrino V., Corradino C., Casagli N., Del Negro C., (2020). *Overflows and hot rock avalanches in March-April 2020 at Stromboli Volcano detected by Remote Sensing and Seismic Monitoring data*, *Remote Sensing*, 12, 3010, doi:10.3390/rs12183010
- Caputo Teresa, Paola Cusano, Simona Petrosino, Fabio Sansivero and Giuseppe Vilardo (2020). *Spectral analysis of ground thermal image temperatures: what we are learning at Solfatara volcano (Italy)*. *Adv. Geosci.*, 52, 55–65, <https://doi.org/10.5194/adgeo-52-55-2020>

- Coppola, D; Laiolo, M; Cigolini, C; Massimetti, F; Delle Donne, D; Ripepe, M; Arias, H; Barsotti, S; Parra, CB; Centeno, RG (2020). *Thermal remote sensing for global volcano monitoring: Experiences from the MIROVA system*. *Frontiers in Earth Science*, 7, 362.
- Cubellis E., Luongo G., Obrizzo F., Sepe V., Tammaro U. (2020). *Contribution to knowledge regarding the sources of earthquakes on the island of Ischia (Southern Italy)*. *Natural Hazards*, 100:955–994, <https://doi.org/10.1007/s11069-019-03833-8>, <http://hdl.handle.net/2122/13302>
- Cusano P., S. Petrosino, E. De Lauro, M. Falanga (2020). *The whisper of the hydrothermal seismic noise at Ischia Island*. *Journal of Volcanology and Geothermal Research* 389 (2020) 106693. DOI: <https://doi.org/10.1016/j.jvolgeores.2019.106693>
- Cusano P., S. Petrosino, Enza De Lauro, Salvatore De Martino, and Mariarosaria Falanga. (2020). *Characterization of the seismic dynamical state through joint analysis of earthquakes and seismic noise: the example of Ischia Volcanic Island (Italy)*. *Adv. Geosci.*, 52, 19–28, 2020, <https://doi.org/10.5194/adgeo-52-19-2020>.
- D'Errico M., Ambrosino F., Baccani G., Bonechi L., Bross A., Bongi M., Caputo A., Ciaranfi R., Cimmino L., Ciulli V., D'Alessandro R., Giudicepietro F., Gonzi S., Macedonio G., Masone V., Melon B., Mori N., Noli P., Orazi M., Passeggio G., Peluso R., Pla-Dalmau A., Saracino G., Scarpato G., Scognamiglio L., Strolin P., Vertechi E., Viliani L. (2020). *Muon radiography applied to volcanoes imaging: the MURAVES experiment at Mt. Vesuvius*. *Journal of Instrumentation*, 15(3), C03014, doi:10.1088/1748-0221/15/03/c03014.
- De Natale, G., De Natale, L., Troise, C., Marchitelli, V., Coviello, A., Holmberg, K.G., Somma, R. (2020). *The Evolution of Covid-19 in Italy after the Spring of 2020: An Unpredicted Summer Respite Followed by a Second Wave*. *Int. J. Environ. Res. Public Health* 2020, 17, 8708..
- De Natale, G., Ricciardi, V., De Luca, G., De Natale, D., Di Meglio, G., Ferragamo, A., Marchitelli, V., Piccolo, A., Scala, A., Somma, R., Spina, E., Troise, C. (2020). *The COVID-19 Infection in Italy: A Statistical Study of an Abnormally Severe Disease*. *J. Clin. Med.* 2020, 9, 1564
- De Martino P., Guardato S., Donnarumma G.P., Dolce M., Trombetti T., Chierici F., Macedonio G., Beranzoli L., Iannaccone G. (2020). *Four years of continuous seafloor displacement measurements in the Campi Flegrei caldera*, *Front. Earth Sci.*, 8:615178, doi:10.3389/feart.2020.615178, 2020.
- Di Lieto B., Romano P., Scarpa R., Linde, A. T. (2020). *Strain signals before and during paroxysmal activity at Stromboli volcano, Italy*. *Geophys. Res. Lett.*, 47, e2020GL088521, <https://doi.org/10.1029/2020GL088521>
- Di Salvo S., Avanzinelli R., Isaia R., Zanetti A., Druitt T., Francalanci L. (2020). *Crystal-mush reactivation by magma recharge: Evidence from the Campanian Ignimbrite activity, Campi Flegrei volcanic field, Italy*. *Lithos* 376–377 (2020) 105780, doi.org/10.1016/j.lithos.2020.105780
- Di Vito Mauro A., Sandro de Vita, Roberto Sulpizio, Evdokia Tema, Elena Zanella. (2020). *Evidenze dal sito di Nola - Croce del Papa*. In: Claude Albore Livadie e Giuseppe Vecchio a cura di NOLA - CROCE DEL PAPA UN VILLAGGIO SEPOLTO DALL'ERUZIONE VESUVIANA DELLE POMICI DI AVELLINO Collection du Centre Jean Bérard, 54. ISSN 1590-3869 ; © Centre Jean Bérard - ISBN 978-2-38050-026-4
- Esposito A., A. Galvani, V. Sepe, S. Atzori, G. Brandi, E. Cubellis, P. De Martino, M. Dolce, A. Massucci, F. Obrizzo, G. Pietrantonio, F. Riguzzi, U. Tammaro (2020). *Concurrent deformation processes in the Matese massif area (Central-Southern Apennines, Italy)*. *Tectonophysics* 774 (2020) 228234. <https://doi.org/10.1016/j.tecto.2019.228234>
- Folch A., Mingari L., Gutierrez N., Hanzich M., Macedonio G., Costa A. (2020). *FALL3D-8.0: a computational model for atmospheric transport and deposition of particles, aerosols and radionuclides*. Part I: model physics and numerics, *Geosci. Model Dev.*, 13, 1431-1458, doi:10.5194/gmd-13-1431-2020.
- Fortunato M., Mazzoni A., Sonnessa A., Berrino G., Greco F., Riguzzi F. (2020). *Indoor height determination of the new absolute gravimetric station of L'Aquila*. *Annals of Geophysics*, 63, 6, GD662, doi:10.4401/ag-8473.
- Galluzzo, D., Nardone, L., La Rocca, M., Esposito, A. M., Manzo, R., & Di Maio, R. (2020). *Statistical moments of power spectrum: a fast tool for the classification of seismic events recorded on volcanoes*. *Advances in Geosciences*, 52, 67-74. <https://doi.org/10.5194/adgeo-52-67-2020>, 2020 <https://adgeo.copernicus.org/articles/52/67/2020/>

- Gaudiosi Germana, Giuliana Alessio, Rosa Nappi, Valentina Noviello, Efsio Spiga and Sabina Porfido (2020). *Evaluation of Damages to the Architectural Heritage of Naples as a Result of the Strongest Earthquakes of the Southern Apennines*. Appl. Sci. 2020, 10, 6880; doi:10.3390/app10196880
- Giglioli, S., Colombo, L., Contestabile, P., Musco, L., Armiento, G., Somma, R., Vicinanza, D., Azzellino, A. (2020). *Source Apportionment Assessment of Marine Sediment Contamination in a Post-Industrial Area (Bagnoli, Naples)*. Water 2020, 12, 2181.
- Giudicepietro F., Lopez C., Macedonio G., Alparone S., Bianco F., Calvari S., De Cesare W., Delle Donne D., Di Lieto B., Esposito A.M., Orazi M., Peluso R., Privitera E., Romano P., Scarpato G., Tramelli A. (2020). *Geophysical precursors of the July-August 2019 paroxysmal eruptive phase and their implications for Stromboli volcano (Italy) monitoring*, Scientific Reports, 10:10296, doi:10.1038/s41598-020-67220-1.  
<https://www.nature.com/articles/s41598-020-67220-1>
- Graziano S.F., Rispoli C., Guarino V., Balassone G., Di Maio G., Pappalardo L., Cappelletti P., Damato G., De Bonis A., Di Benedetto C., D'Orazio L., Morra V. (2020). *The Roman Villa of Positano (Campania Region, Southern Italy): Plasters, Tiles And Geoarchaeological Reconstruction*. Int. J Conserv. Sci 11, S11, 2020: 319-344.
- Iannaccone G., Pucciarelli G., Guardato S., Donnarumma G.P., Macedonio G., Beranzoli L., (2020). *When the hydrophone works as an accelerometer*, Seism. Res. Lett., doi:10.1785/0220200129, 2020.
- Iorio M., Carotenuto, A., Corniello, A., Di Fraia, S., Massarotti, N., Mauro, A., Somma, R., Vanoli, L. (2020). *Low Enthalpy Geothermal Systems in Structural Controlled Areas: A Sustainability Analysis of Geothermal Resource for Heating Plant (The Mondragone Case in Southern Appennines, Italy)*. Energies 2020, 13, 1237.
- Mele D., Costa A., Dellino P., Sulpizio R., Dioguardi F., Isaia R., Macedonio G. (2020). *Total grain size distribution of components of fallout deposits and implications for magma fragmentation mechanisms: examples from Campi Flegrei caldera (Italy)*, Bull. Volcanol, 82(31), 1-12, doi:10.1007/s00445-020-1368-8.
- Mormone A, Piochi M (2020). *Mineralogy, Geochemistry and Genesis of Zeolites in Cenozoic Pyroclastic Flows from the Asuni Area (Central Sardinia, Italy)*. Minerals, 10(3), 268; <https://doi.org/10.3390/min10030268>.
- Nappi R., Nave, R., Gaudiosi, G., Alessio, G., Siniscalchi, V., Marotta, E., Civico, R., Pizzimenti, L., Peluso, R., Belviso, P., Porfido, S., Open EMERGEIO Working Group (2020). *Coseismic evidence of surface faulting at the Ischia Volcanic Island after the 21 August 2017 Md 4.0 Casamicciola Earthquake*. PANGAEA, <https://doi.org/10.1594/PANGAEA.911773>.
- Nardò S, Ascione A., Mazzoli S., Terranova C. and G. Vilaro (2020). *PS-InSAR data analysis: ground deformation in pre-seismic period in the l'Aquila 2009 earthquake region*. Boll. Geof. Teor. Appl., 61, 1, 41-56 DOI 10.4430/bgta0251.
- Nardone Lucia, Roberta Esposito, Danilo Galluzzo, Simona Petrosino, Paola Cusano, Mario La Rocca, Mauro Antonio Di Vito, and Francesca Bianco (2020). *Array and spectral ratio techniques applied to seismic noise to investigate the Campi Flegrei (Italy) subsoil structure at different scales*. Adv. Geosci., 52, 75–85, 2020 <https://doi.org/10.5194/adgeo-52-75-2020>
- Panarello A., Maria R. Palombo, I. Biddittu, Mauro A. Di Vito, G. Farinaro and P. Mietto (2020). *On the devil's tracks: unexpected news from the Foresta ichnosite (Roccamonfina volcano, central Italy)*. J. of Quaternary Science (2020) 1–13 ISSN 0267-8179. DOI: 10.1002/jqs.3186
- Pelullo, C., Cirillo, G., Iovine, R.S., Arienzo, I., Aulinas, M., Pappalardo, L., Petrosino P., Fernandez-Turiel, J.L., D'Antonio, M. (2020). *Geochemical and Sr-Nd isotopic features of the Zaro volcanic complex: insights on the magmatic processes triggering a small-scale prehistoric eruption at Ischia island (south Italy)*. International Journal of Earth Sciences, 109 (8), pp. 2829-2849, <https://doi.org/10.1007/s00531-020-01933-6>.
- Petrosino S., Ricco C., De Lauro E., Aquino I., Falanga M. (2020). *Time evolution of medium and long-period ground tilting at Campi Flegrei caldera*. Adv. Geosci., 52, 9–17, <https://doi.org/10.5194/adgeo-52-9-2020>.
- Petrosino S., Cusano P. (2020). *Low frequency seismic source investigation in volcanic environment: The Mt. Vesuvius atypical case*. Adv. Geosci., 52, 29–39, <https://doi.org/10.5194/adgeo-52-29-2020>.
- Porfido Sabina, Giuliana Alessio, Germana Gaudiosi and Rosa Nappi (2020). *New Perspectives in the Definition/Evaluation of Seismic Hazard through Analysis of the Environmental Effects Induced by Earthquakes*. Geosciences 2020, 10, 58; doi:10.3390/geosciences10020058

- Puopolo R, Gallo G, Mormone\_A, Limauro D, Contursi P, Piochi M, Bartolucci S, Fiorentino G (2020). *Identification of a new heavy metal resistant strain of Geobacillus stearothermophilus isolated from a hydrothermally active volcanic area in Southern Italy*. International Journal of Environmental Research and Public Health, 17, 2678; doi:10.3390/ijerph17082678.
- Romano C., Vona A., Campagnola S., Giordano G., Arienzo I., Isaia R. (2020). *Modelling and physico-chemical constraints to the 4.5 ka Agnano-Monte Spina Plinian eruption (Campi Flegrei, Italy)*. Chemical Geology, 532, 110391, doi.org/10.1016/j.chemgeo.2019.119301
- Sabbarese C., Ambrosino F., Chiodini G., Giudicepietro F., Macedonio G., Caliro S., De Cesare W., Bianco F., Pugliese M., Roca V. (2020). *Continuous radon monitoring during seven years of volcanic unrest at Campi Flegrei caldera (Italy)*, Scientific Reports, 10:9551, doi:10.1038/s41598-020-66590-w.
- Sabbatino M, Vitale S, Tavana S, Consorti L, Corradetti A, Cipriani A, Arienzo I, Parente M (2020). *Constraining the onset of flexural subsidence and peripheral bulge extension in the Miocene foreland of the southern Apennines (Italy) by Sr-isotope stratigraphy*. Sedimentary Geology 401 (2020) 105634
- Schiavone R., De Natale G., Borgia A., Troise C., Moretti R., Somma R. (2020). *Seismogenic potential of withdrawal-reinjection cycles: Numerical modelling and implication on induced seismicity*, Geothermics, Volume 85, 2020, 101770, ISSN 0375-6505, <https://doi.org/10.1016/j.geothermics.2019.101770>.
- Shevchenko Alina, Viktor N. Dvigalo, Thomas R. Walter, Rene Mania, Francesco Maccaferri, Ilya Yu. Svirid, Alexander B. Belousov, Marina G. Belousova (2020). *The rebirth and evolution of Bezymianny volcano, Kamchatka after the 1956 sector collapse*, Communications Earth and Environment.
- Sevink Jan, Wieke de Neef, Mauro A Di Vito, Ilenia Arienzo, Peter AJ Attema, Emiel E van Loon, Burkhard Ullrich, Michael den Haan, Francesca Ippolito and Nikolaas Noorda (2020). *A multidisciplinary study of an exceptional prehistoric waste dump in the mountainous inland of Calabria (Italy): Implications for reconstructions of prehistoric land use and vegetation in Southern Italy*. The Holocene 2020, Vol. 30(9) 1310–1331, DOI: 10.1177/0959683620919974
- Sevink Jan, Wouter van Gorp, Mauro A. Di Vito, Ilenia Arienzo (2020). *Distal tephra from Campanian eruptions in early Late Holocene fills of the Agro Pontino graben and Fondi basin (Southern Lazio, Italy)*. J. of Volcanology and Geothermal Research 405 (2020) 107041. <https://doi.org/10.1016/j.jvolgeores.2020.107041>
- Silleni A, Giordano G, Isaia R, Ort MH (2020). *The Magnitude of the 39.8 ka Campanian Ignimbrite Eruption, Italy: Method, Uncertainties and Errors*. Front. Earth Sci. 8:543399. doi: 10.3389/feart.2020.543399
- Silvestri M., E. Marotta, M.F. Buongiorno, G. Avvisati, P. Belviso, E. Bellucci Sessa, T. Caputo, V. Longo, V. De Leo and S. Teggi i (2020). *Monitoring of Surface Temperature on Parco delle Biancane (Italian Geothermal Area) Using Optical Satellite Data, UAV and Field Campaigns*. Remote Sens. 2020, 12, 2018 doi:10.3390/rs12122018
- Sun Y, Schmitt A, Pappalardo L, and Russo M. (2020). *Quantification of excess <sup>231</sup>Pa in late Quaternary igneous baddeleyite*. American Mineralogist 105 (12): 1830–1840. doi: <https://doi.org/10.2138/am-2020-7449>
- Sun Yi, Axel K. Schmitt, Tobias Häger, Marcus Schneider, Lucia Pappalardo & Massimo Russo (2020). *Natural blue zircon from Vesuvius*. Miner Petrol . <https://doi.org/10.1007/s00710-020-00727-7>
- Troiano, A., & Di Giuseppe, M. G. (2020) *Application of principal component analysis to geo-electrical recordings*. Journal of Applied Geophysics, 104038.
- Young N., Isaia R., Gottsmann J. (2020). *Gravimetric Constraints on the Hydrothermal System of the Campi Flegrei Caldera*. Journal of Geophysical Research: Solid Earth, 125, doi.org/10.1029/2019JB019231

#### Articoli in volumi/Capitoli di libri/libri

- Dell'Orco, S., Sperandeo, R., Punzo, C., Bottone, M., Esposito, A., Esposito, A. M., Bochicchio, V. & Maldonato, M. N. (2020). *Decision-Making Styles in an Evolutionary Perspective*. In: Esposito A., Faundez-Zanuy M., Morabito F., Pasero E. (eds) Neural Approaches to Dynamics of Signal Exchanges. Smart Innovation, Systems and Technologies, vol 151. Springer, Singapore. [https://doi.org/10.1007/978-981-13-8950-4\\_45](https://doi.org/10.1007/978-981-13-8950-4_45)  
[https://link.springer.com/chapter/10.1007/978-981-13-8950-4\\_45](https://link.springer.com/chapter/10.1007/978-981-13-8950-4_45)
- Esposito, A., Cuciniello, M., Amorese, T., Esposito, A. M., Troncone, A., Maldonato, M. N., Vogel, C., Bourbakis, N., & Cordasco, G. (2020). *Seniors' appreciation of humanoid robots*. In: Esposito A.,

- Faundez-Zanuy M., Morabito F., Pasero E. (eds) *Neural Approaches to Dynamics of Signal Exchanges*. Smart Innovation, Systems and Technologies, vol 151. Springer, Singapore. [https://doi.org/10.1007/978-981-13-8950-4\\_30](https://doi.org/10.1007/978-981-13-8950-4_30).  
[https://link.springer.com/chapter/10.1007/978-981-13-8950-4\\_30](https://link.springer.com/chapter/10.1007/978-981-13-8950-4_30)
- Esposito, A. M., De Bernardo, A., Ferrara, S., Giudicepietro, F., & Pappalardo, L. (2020). *SOM-based analysis of volcanic rocks: an application to Somma–Vesuvius and Campi Flegrei volcanoes (Italy)*. In: Esposito A., Faundez-Zanuy M., Morabito F., Pasero E. (eds) *Neural Approaches to Dynamics of Signal Exchanges*. Smart Innovation, Systems and Technologies, ISSN: 2190-3018. (pp. 55-60), vol 151. Springer, Singapore. [https://doi.org/10.1007/978-981-13-8950-4\\_6](https://doi.org/10.1007/978-981-13-8950-4_6).  
[https://link.springer.com/chapter/10.1007/978-981-13-8950-4\\_6](https://link.springer.com/chapter/10.1007/978-981-13-8950-4_6)
- Esposito A.M., Alaia G., Giudicepietro F., Pappalardo L., D’Antonio M. (2020). *Unsupervised Geochemical Analysis of the Eruptive Products of Ischia, Vesuvius and Campi Flegrei*. In: Esposito A., Faundez-Zanuy M., Morabito F., Pasero E. (eds) *Progresses in Artificial Intelligence and Neural Systems*. Smart Innovation, Systems and Technologies, vol 184. Springer, Singapore, On line  
[https://link.springer.com/chapter/10.1007/978-981-15-5093-5\\_17](https://link.springer.com/chapter/10.1007/978-981-15-5093-5_17)
- Pappalardo L., Buono G. (2020). *Insights into processes and time-scales of magma storage and ascent from textural and geochemical investigations: case studies from high-risk Neapolitan volcanoes (Italy)*. In press as chapter in: AGU Monograph Titled *Magma Dynamics and Timescales in Volcanic Systems*, Eds.: Masotta M., Mollo M., Bizimis M., Scarlato P., Beier C.

### **Altre pubblicazioni**

(pubblicazioni non periodiche, opuscoli divulgativi, guide ad escursioni, atti di convegni, abstracts, pubblicazioni multimediali)

### **Presentazione di note (\*) e posters a Congressi internazionali**

#### Abstracts/Atti di Convegni

- Aiuppa A, Bitetto M, Delle Donne D, La Monica F, Tamburello G, Coppola D, Della Schiava M, Innocenti L, Lacanna G, Laiolo M, Marchetti E, Massimetti F, Pistolesi M, Silengo MC, and Ripepe M (2020). CO<sub>2</sub> and SO<sub>2</sub> plume emissions during the summer 2019 Stromboli unrest. 4a Conferenza A. Rittmann Catania, 12 | 14 Febbraio 2020, Miscellanea INGV, 52.
- Carlino S., V Convertito, A Tramelli, V De Novellis, NA Pino (2020). *New seismological insights from the analyses of historical and recent earthquakes at Ischia Island (Southern Italy)* EGU General Assembly Conference Abstracts, 12975
- Daliri, M., Somma, R., Buccino, M., Troise, C., Molisso, F., De Natale, G. (2020). *Numerical analysis of arsenic concentration in the marine sediments of Bagnoli bay*. Proceedings of the International Offshore and Polar Engineering Conference Volume 2020- October 2020, Pages 554-560
- Delle Donne D, Aiuppa A, Bitetto M, Coltelli M, Coppola D, Pecora E, Ripepe M, Tamburello G, D’Aleo R., (2020). *Systematic SO<sub>2</sub> emission patterns prior, during, and after an Etna’s paroxysmal phases captured by ultraviolet cameras at Mt. Etna (2014 – 2016)*. 4a Conferenza A. Rittmann Catania, 12 | 14 Febbraio 2020, Miscellanea INGV, 52.
- Di Lieto B, P Romano, R Scarpa, AT Linde, A Sangianantoni (2020). *Early warning signals before paroxysmal activity at Stromboli volcano, Italy*. EGU General Assembly Conference Abstracts.
- Esposito, A., Cirillo, I., Esposito, A. M., Fortunati, L., Foresti, G. L., Escalera, S., & Bourbakis, N. (2020, November). *Impairments in decoding facial and vocal emotional expressions in high functioning autistic adults and adolescents*. In 2020 15th IEEE International Conference on Automatic Face and Gesture Recognition (FG 2020) (pp. 667-674). IEEE.  
<https://ieeexplore.ieee.org/abstract/document/9320285>
- Gaudiosi G., Paoletti V., Nappi R., Luiso P., Cella F., Florio G., and Fedi M. (2020). *Multiparametric data analysis for identifying active fault geometries in the Abruzzo and Molise regions (Central-Southern Appennines, Italy)*. EGU 2020-18558 <https://doi.org/10.5194/egusphere-egu2020-18558>.
- Isaia R., M. G. Di Giuseppe, J. Natale, F. D.A. Tramparulo, A. Troiano, S. Vitale (2020). *New insights on the structural setting of the Pisciarelli fumarole field (Campi Flegrei caldera): implications for evolution and eruptive scenarios*. EGU General Assembly 2020, 13178.

- Laiolo M, Coppola D, Massimetti F, Cigolini C, Aiuppa A, Bitetto M, Della Schiava M, Delle Donne D, Innocenti L, Lacanna G, La Monica F, Marchetti E, Pistolesi M, Silengo C, Ripepe M, (2020). *The 2019 Stromboli eruptive crisis monitored from space: insights on thermal activity, effusion rates and erupted volume*. 4a Conferenza A. Rittmann Catania, 12 | 14 Febbraio 2020, Miscellanea INGV, 52.
- Lippiello E., G Petrillo, C Godano, L de Arcangelis, A Tramelli, ... (2020). *The overlap of aftershock coda waves and forecasting the first hour aftershocks*, EGU General Assembly Conference Abstracts, 2444
- LI Esquivel Mendiola, M Caldò, A Tramelli (2020). *Design of an optimal seismic network for monitoring geothermal fields* EGU General Assembly 2020, Conference Abstracts, 12259
- Maldonato, N. M., Chiodi, A., Di Corrado, D., Esposito, A. M., De Lucia, S., Sperandeo, R., & Muzii, B. (2020, September). *Heuristics, abductions and adaptive algorithms: A toolbox for human decision making*. In 2020 11th IEEE International Conference on Cognitive Infocommunications (CogInfoCom) (pp. 000273-000282). IEEE. <https://ieeexplore.ieee.org/abstract/document/9237850>
- Orazi Massimo, Flora Giudicepietro, Carmen López, Giovanni Macedonio, Salvatore Alparone, Francesca Bianco, Sonia Calvari, Walter De Cesare, Dario Delle Donne, Bellina Di Lieto, Antonietta Esposito, Rosario Peluso, Eugenio Privitera, Pierdomenico Romano, Giovanni Scarpato, and Anna Tramelli (2020). *The 2019 eruptive phase of Stromboli volcano through multiparametric geophysical observations*, EGU2020-11260, <https://doi.org/10.5194/egusphere-egu2020-11260>, EGU General Assembly 2020 <https://ui.adsabs.harvard.edu/abs/2020EGUGA..2211260O/abstract>
- Reusch Boris, Christian Hoffmann, Ulrich Sander, Swantje Wiebalck, Laurent Verdier, William Metref, Dominique Joly, Anne Dransart, Amelio Incollingo, Pasquale Longo, Fadwa Alshawaf, Galina Dick, Umberto Riccardi, Giuseppe Brandi, Mario Dolce, Diana Duilio, Claudio Martino, Umberto Tammaro, (2020). *TRack Your ATmosphere: Open Learning Materials for Vocational Education and Training*. Final Report. EGU General Assembly 2020, EGU2020-20901 <https://doi.org/10.5194/egusphere-egu2020-20901>.
- Richter, G., Hainzl, S., Niemz, P., Silverii, F., Dahm, T., Zöller, G., Zang, A., and Maccaferri, F. (2020). *Spatiotemporal modelling of induced seismicity with a stress-based statistical approach applied to different production sites*, EGU General Assembly 2020, Online, 4–8 May 2020, EGU2020-10905, <https://doi.org/10.5194/egusphere-egu2020-10905>, 2020
- Ripepe M, Lacanna G, Silengo MC, Laiolo M, Bitetto M, Massimetti F, La Monica F, Pistolesi M, Della Schiava M, Innocenti L, Marchetti E, Cigolini C, Coppola D, Delle Donne D, Aiuppa A., 2020. *The July-August 2019 Stromboli eruptive crisis and the early-warning system for paroxysm eruptions*. 4a Conferenza A. Rittmann Catania, 12 | 14 Febbraio 2020, Miscellanea INGV, 52.
- Sepe Ciro, Manuela Cecconi, Diego Di Martire, Lucia Pappalardo, Giacomo Russo, Riccardo Scarfone, Enza Vitale, (2020). *Formation of capillary barriers during rainfall events in pyroclastic deposits in the Vesuvian area*. E-UNSAT2020 - Unsaturated Horizons 4th European Conference on saturated soils, 24 to 26 giugno 2020, Lisbona
- Silverii, F., Al-Halbouni, D., Stefanova Vassileva, M., Richter, G., Wang, R., Gonzalez Cansado, B., Hainzl, S., Dahm, T., and Maccaferri, F. (2020). *Underground seasonal storage of gas: testing numerical modelling tools with application to i) a deep aquifer-layer, and ii) salt caverns.*, EGU General Assembly 2020, Online, 4–8 May 2020, EGU2020-10311, <https://doi.org/10.5194/egusphere-egu2020-10311>, 2020
- Soldati G, Antonioli A, Ascani M, Atzori S, Cannelli V, Ciaccio MG, D'Alessandro A, De Astis A, Farroni S, Galli G, Lombardi A, Melini D, Moro M, Nardi A, Piersanti A, Pignatelli A, Piochi M, Saroli M, Serratore A, Silvestri M, Vallocchia M (2020). *IRON: a permanent dense nationwide radon network to approach the challenge of monitoring seismic regions*. EGU, General Assembly, Vienna | Austria | 3–8 May
- Tramelli A., C Godano, F Giudicepietro, P Ricciolino, S Caliro (2020). *Volcano-tectonic earthquake statistics for Campi Flegrei monitoring*. EGU General Assembly Conference Abstracts, 8498

## **Presentazione di note (\*) e posters a Congressi nazionali**

### Abstracts/Atti di Convegni

- Berrino G., Greco F., Riguzzi F., Fortunato M., Mazzoni A., Sonnessa A. (2020). *Determinazione della quota della nuova stazione di gravità assoluta dell'Aquila e prime misure di g*. 2a Giornata LdA Osservatorio Nazionale Terremoti, 15-16 giugno 2020.
- Carlino S., Troiano A., Di Giuseppe M.G., Isaia R., de Vita S., Belviso P., Carandente A., Di Vito M., Marotta E. (2020). *Deep Electrical Resistivity Tomography of the northern sector of Ischia active volcano (Italy): an outline of subsurface structures and fluids circulation*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 122

- Di Giuseppe M.G., Troiano, A., Isaia R., Natale J., Tramparulo F.D.A., Vitale S. (2020). *Monitoring active fumaroles through electrical resistivity tomograms: an application to the Pisciarelli fumarolic field (Campi Flegrei, Italy)*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 125.
- Di Salvo S., Avanzinelli R., Isaia R., Zanetti A., Druitt T., Francalanci L. (2020). *Crystal-mush reactivation processes by mafic magma recharge: evidence from the Campanian Ignimbrite activity, Campi Flegrei volcanic field, Italy*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 225
- Isaia R., Di Giuseppe M.G., Troiano, A., Tramparulo F.D.A., Vitale S., Avino R., Caliro S., Carapezza M.L., Ranaldi M., Santi A., Tarchini L. (2020). *Structure and present state of the Astroni volcano (Campi Flegrei, Italy) highlighted from multidisciplinary high-resolution investigations*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 120
- Natale J., Vitale S., Isaia R., Tramparulo F.D.A., Ferranti L., Steinmann L., Spiess V., Sacchi M. (2020). *Relationships between faulting and volcano-tectonic processes/events at Campi Flegrei caldera*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 119
- Natale J., Ciarcia S., Giordano G., Isaia R., Lucci F., Prinzi E.P., Tramparulo F.D.A., Vitale S., Vona A. (2020). *The Presenzano dike (Roccamonfina volcanic area, southern Italy): evidence of tectonic control on dike emplacement and interaction with the carbonate host-rock*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 34
- Natale J., Isaia R., Vitale S., Tramparulo F.D.A., Ferranti L., Marino C., Steinmann L., Spiess V., Sacchi M. (2020). *Correlation between submerged and continental infill at Campi Flegrei caldera: insights on the volcano-tectonic events of the last 15 kyr*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 55
- Scateni B., Pistolesi M., Bertagnini A., Di Roberto A., Marianelli P., Isaia R., D'Assisi Tramparulo F., Mele D., Rosi M., Sbrana A. (2020). *The Solfatara volcano (Campi Flegrei, Italy) eruptive sequence: sedimentological, textural and geochemical study and reconstruction of the explosive dynamics*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 236
- Silleni A., Giordano G., Isaia R., Ort M. (2020). *The transport, sedimentation and deposition of the 39.8-ka Campanian Ignimbrite: a study from the field to the volcanic process*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 63
- Tramparulo F.D.A., Di Giuseppe M.G., Isaia R., Natale J., Troiano, A., Vitale S. (2020). *New insights on the structural setting of the Pisciarelli fumarole field (Campi Flegrei caldera): implications for evolution and eruptive scenarios*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020, Miscellanea INGV, Abs. Vol. 52, 63

### **Attività editoriali, Organizzative e incarichi speciali**

- Branca S., R. Isaia, F. Lucchi, P. Donato, R. Sulpizio, P. Del Carlo (2020). *Conveners della sessione: S2. Volcanological field studies and tephrostratigraphy*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020
- Isaia R. (2020). *Conferenza Plenaria dal titolo: The Campi Flegrei caldera (southern Italy): an active "super-volcano" with residents low risk perception*. IV Conferenza Rittmann, Catania, 13 Febbraio 2020.
- Isaia R., M. Sciotto, A. Cannata, M. G. Di Giuseppe, E. Privitera, A. Troiano, S. Vitale (2020). *Conveners della sessione: S5. Multidisciplinary investigations for the definition of structure and dynamics of active volcanic system and control in eruptive style*. IV Conferenza Rittmann, Catania, 12-14 Febbraio 2020
- Maccaferri F. (2020). *Guest Editor for Frontiers journal, research topic: "Seismicity in Volcanic Areas"*.
- Maccaferri F. (2020). *Co-convenor for the EGU2020 Sharing Geoscience On-line, session: SM6.1 "Tectonic and volcanic earthquake swarms: From a multi-disciplinary imaging and tracking of crustal fluids to characterization of transient forcing"*, <https://meetingorganizer.copernicus.org/EGU2020/session/36117>
- Petrosino S. (2020). *Membro dell'Editorial Board del Volume "Understanding volcanic processes through geophysical and volcanological data investigations: some case studies from Italian sites"*, *Advances in Geosciences (ADGEO) – Copernicus Publications, dal 01/07/2019*.
- Porfido, S., Alessio G., Gaudiosi G., Nappi R. Michetti A. (2020). *Guest Editors of the Special Issue of Geosciences (ISSN 2076-3263) "The November 23rd, 1980 Irpinia-Lucania, Southern Italy Earthquake: Insights and Reviews 40 Years Later"*. The special Issue belongs to the section "Natural Hazards". [https://www.mdpi.com/journal/geosciences/special\\_issues/earthquake\\_1980](https://www.mdpi.com/journal/geosciences/special_issues/earthquake_1980)



## **Seminari**

- Isaia R. (2020). *La caldera dei Campi Flegrei: un super-vulcano in un'area densamente abitata*, per il Dipartimento di Scienze chimiche e geologiche, Università degli Studi di Cagliari, via web il 07 Maggio 2020
- Pappalardo L. (2020). *Pericolosità e rischio vulcanico: i vulcani attivi dell'area napoletana*. Università degli Studi della Basilicata, Dipartimento di Scienze, 21 febbraio 2020.

## **Attività divulgativa**

### ***Blog INGVvulcani/siti web***

- Bagnato E. (2020). *L'eruzione del vulcano che paralizzò i cieli d'Europa*. Articolo Blog INGVvulcani, pubblicato il 31 marzo 2020. <https://ingvvulcani.com/2020/03/31/leruzione-del-vulcano-che-paralizzo-i-cieli-deuropa/>
- Bagnato E. (2020). *I vulcani, sorgenti di mercurio per l'atmosfera terrestre*. Articolo Blog INGVvulcani, pubblicato il 26 maggio 2020. <https://ingvvulcani.com/2020/05/26/i-vulcani-sorgenti-di-mercurio-per-latmosfera-terrestre/>
- Bagnato E. (2020). *La sorveglianza geochimica dei vulcani campani*. Articolo Blog INGVvulcani, pubblicato il 21 dicembre 2020. <https://ingvvulcani.com/2020/12/21/la-sorveglianza-geochimica-dei-vulcani-campani/>
- Musacchio Gemma, Maddalena De Lucia, Marco Anzidei, Stefano Solarino, Elena Eva (2020). *Sito web del progetto Savemedcoasts2*. Progettazione, strutturazione dei contenuti, elaborazione dell'architettura dell'informazione, ricerca immagini e testi.

## **Eventi, Mostre, esposizioni**

- De Lucia M. (coord.) (2020). Alessio Giuliana, Dalla Via Giorgio, Milano Girolamo - Partecipazione INGV OV alla Notte europea dei ricercatori, Progetto Meet MeTonight – Organizzazione e realizzazione giochi a quiz online “Cosa sai dei vulcani?” e “Cosa sai dei terremoti?” - Napoli, 27 novembre 2020.
- De Lucia M. (coord.) (2020). Alessio Giuliana, Castellano Mario, Dalla Via Giorgio, Milano Girolamo - Partecipazione INGV OV alla manifestazione Futuro Remoto 2020 organizzata da Città della Scienza – Caffè scientifico online “Irpinia – Lucania, 23 novembre 1980, il terremoto più forte degli ultimi cento anni in Italia. Dai nostri ricordi ai progressi della scienza”, Napoli, 23 novembre 2020.