Giuseppe De Natale

List of Publications by Year
in descending order

98	3,335	109264 35	168321 53
papers	citations	h-index	g-index

114	114	114	2298
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evidence for fluid migration as the source of deformation at Campi Flegrei caldera (Italy). Geophysical Research Letters, 2006, 33, n/a-n/a.	1.5	205
2	Seismic Evidence for a Low-Velocity Zone in the Upper Crust Beneath Mount Vesuvius. Science, 1996, 274, 592-594.	6.0	134
3	Geophysical and geochemical modelling of the 1982â€“1984 unrest phenomena at Campi Flegrei caldera (southern Italy). Journal of Volcanology and Geothermal Research, 1991, 48, 199-222.	0.8	118
4	On the possible use of optical fiber Bragg gratings as strain sensors for geodynamical monitoring. Optics and Lasers in Engineering, 2002, 37, 115-130.	2.0	103
5	Ground deformations in collapsed caldera structures. Journal of Volcanology and Geothermal Research, 1993, 57, 19-38.	0.8	89
6	The effect of collapse structures on ground deformations in calderas. Geophysical Research Letters, 1997, 24, 1555-1558.	1.5	88
7	The Campi Flegrei caldera: unrest mechanisms and hazards. Geological Society Special Publication, 2006, 269, 25-45.	0.8	78
8	Progressive approach to eruption at Campi Flegrei caldera in southern Italy. Nature Communications, 2017, 8, 15312.	5.8	72
9	An image of Mt. Vesuvius obtained by 2D seismic tomography. Journal of Volcanology and Geothermal Research, 1998, 82, 161-173.	0.8	70
10	The volcanic and geothermally active Campi Flegrei caldera: an integrated multidisciplinary image of its buried structure. International Journal of Earth Sciences, 2014, 103, 401-421.	0.9	69
11	Ground deformation at calderas driven by fluid injection: modelling unrest episodes at Campi Flegrei (Italy). Geophysical Journal International, 2011, 187, 833-847.	1.0	68
12	The geothermal exploration of Campanian volcanoes: Historical review and future development. Renewable and Sustainable Energy Reviews, 2012, 16, 1004-1030.	8.2	68
13	The Sommaâ€“Vesuvius volcano (Southern Italy): Structure, dynamics and hazard evaluation. Earth-Science Reviews, 2006, 74, 73-111.	4.0	67
14	A mechanical fluid-dynamical model for ground movements at Campi Flegrei caldera. Journal of Geodynamics, 2001, 32, 487-517.	0.7	63
15	Seismicity preceding volcanic eruptions: New experimental insights. Geology, 2007, 35, 183.	2.0	61
16	The Campi Flegrei caldera unrest: Discriminating magma intrusions from hydrothermal effects and implications for possible evolution. Earth-Science Reviews, 2019, 188, 108-122.	4.0	60
17	Seismic sources and attenuation properties at the Campi Flegrei volcanic area. Pure and Applied Geophysics, 1987, 125, 883-917.	0.8	59
18	Accurate fault mechanism determinations for a 1984 earthquake swarm at Campi Flegrei caldera (Italy) during an unrest episode: Implications for volcanological research. Journal of Geophysical Research, 1995, 100, 24167-24185.	3.3	56

#	Article	IF	Citations
19	3-D Modelling of Campi Flegrei Ground Deformations: Role of Caldera Boundary Discontinuities. Pure and Applied Geophysics, 2004, 161, 1329-1344.	0.8	54
20	The COVID-19 Infection in Italy: A Statistical Study of an Abnormally Severe Disease. Journal of Clinical Medicine, 2020, 9, 1564.	1.0	53
21	Seismicity and 3-D substructure at Sommaâ€"Vesuvius volcano: evidence for magma quenchingâ˜†. Earth and Planetary Science Letters, 2004, 221, 181-196.	1.8	51
22	The geothermal system of Ischia Island (southern Italy): Critical review and sustainability analysis of geothermal resource for electricity generation. Renewable Energy, 2014, 62, 177-196.	4.3	50
23	Teleseismic tomography of the Campanian volcanic area and surrounding Apenninic belt. Journal of Volcanology and Geothermal Research, 2001, 109, 55-75.	0.8	49
24	Source parameters of microearthquakes at Phlegraean Fields (Southern Italy) volcanic area. Physics of the Earth and Planetary Interiors, 1987, 47, 25-42.	0.7	48
25	Evidence for static stress interaction among earthquakes in the south-central Apennines (Italy). Geophysical Journal International, 1998, 134, 809-817.	1.0	48
26	Q c of three component seismograms of volcanic microearthquakes at Campi Flegrei volcanic area â€" Southern Italy. Pure and Applied Geophysics, 1985, 123, 683-696.	0.8	45
27	The Campi Flegrei Deep Drilling Project (CFDDP): New insight on caldera structure, evolution and hazard implications for the Naples area (Southern Italy). Geochemistry, Geophysics, Geosystems, 2016, 17, 4836-4847.	1.0	45
28	High-resolution morpho-bathymetry of Pozzuoli Bay, southern Italy. Journal of Maps, 2016, 12, 222-230.	1.0	45
29	Native sulfur, sulfates and sulfides from the active Campi Flegrei volcano (southern Italy): Genetic environments and degassing dynamics revealed by mineralogy and isotope geochemistry. Journal of Volcanology and Geothermal Research, 2015, 304, 180-193.	0.8	42
30	Seismicity at Somma-Vesuvius and its implications for the 3D tomography of the volcano. Journal of Volcanology and Geothermal Research, 1998, 82, 175-197.	0.8	40
31	Coulomb stress changes at calderas: Modeling the seismicity of Campi Flegrei (southern Italy). Journal of Geophysical Research, 2003, 108, .	3.3	40
32	Structure and dynamics of the Somma-Vesuvius volcanic complex. Mineralogy and Petrology, 2001, 73, 5-22.	0.4	38
33	Electromagnetic outline of the Solfataraâ€"Pisciarelli hydrothermal system, Campi Flegrei (Southern) Tj ETQq1 1 0.784314 rgBT /Ove	0.8	38
34	A geochemical and geophysical reappraisal to the significance of the recent unrest at <scp>C</scp>ampi <scp>F</scp>legrei caldera (<scp>S</scp>outhern <scp>I</scp>taly). Geochemistry, Geophysics, Geosystems, 2017, 18, 1244-1269.	1.0	38
35	Understanding the Seismic Velocity Structure of Campi Flegrei Caldera (Italy): From the Laboratory to the Field Scale. Pure and Applied Geophysics, 2006, 163, 2205-2221.	0.8	37
36	The first application of compositional data analysis (CoDA) in a multivariate perspective for detection of pollution source in sea sediments: The Pozzuoli Bay (Italy) case study. Chemosphere, 2021, 274, 129955.	4.2	36

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37	Recent geophysical investigation at Somma-Vesuvio volcanic complex. Journal of Volcanology and Geothermal Research, 1993, 58, 239-262.	0.8	35
38	Probabilistic Location of Seismic Sequences in Heterogeneous Media. Bulletin of the Seismological Society of America, 2004, 94, 2239-2253.	1.1	35
39	Source parameter analysis from strong motion records of the Friuli, Italy, earthquake sequence (1976-1977). Bulletin of the Seismological Society of America, 1987, 77, 1127-1146.	1.1	35
40	A model for earthquake generation during unrest episodes at Campi Flegrei and Rabaul Calderas. Geophysical Research Letters, 1997, 24, 1575-1578.	1.5	33
41	Numerical simulation of pyroclastic density currents on Campi Flegrei topography: a tool for statistical hazard estimation.. Journal of Volcanology and Geothermal Research, 2004, 132, 1-14.	0.8	33
42	Title is missing!. Journal of Seismology, 1997, 1, 305-319.	0.6	32
43	Internal stress field at Mount Vesuvius: A model for background seismicity at a central volcano. Journal of Geophysical Research, 2000, 105, 16207-16214.	3.3	31
44	Coseismic displacements and creeping along the Pernicana fault (Etna, Italy) in the last 17 years: a detailed study of a tectonic structure on a volcano. Journal of Volcanology and Geothermal Research, 2001, 109, 109-131.	0.8	31
45	k-Means clustering as tool for multivariate geophysical data analysis. An application to shallow fault zone imaging. Journal of Applied Geophysics, 2014, 101, 108-115.	0.9	31
46	Scaling of peak ground motions from digital recordings of small earthquakes at Campi Flegrei, southern Italy. Pure and Applied Geophysics, 1988, 126, 37-53.	0.8	30
47	Three Decades of Seismic Activity at Mt. Vesuvius: 1972?2000. Pure and Applied Geophysics, 2004, 161, 123-144.	0.8	29
48	On the correlation between solar activity and large earthquakes worldwide. Scientific Reports, 2020, 10, 11495.	1.6	29
49	A probability method for local earthquake focal mechanisms. Geophysical Research Letters, 1991, 18, 613-616.	1.5	28
50	A diode-laser-based spectrometer for in-situ measurements of volcanic gases. Applied Physics B: Lasers and Optics, 2004, 78, 235-240.	1.1	28
51	Exploitation of geothermal energy in active volcanic areas: A numerical modelling applied to high temperature Mofete geothermal field, at Campi Flegrei caldera (Southern Italy). Renewable Energy, 2016, 87, 54-66.	4.3	28
52	Source parameters of earthquakes in the Strait of Messina, Italy, during this century. Tectonophysics, 1989, 166, 221-234.	0.9	26
53	Finite element modelling of topographic effects on elastic ground deformation at Mt. Etna. Journal of Volcanology and Geothermal Research, 2005, 144, 257-271.	0.8	26
54	Modelling of hydrogen sulfide dispersion from the geothermal power plants of Tuscany (Italy). Science of the Total Environment, 2017, 583, 408-420.	3.9	24

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55	Mineralogical, geochemical and isotopic features of tuffs from the CFDDP drill hole: Hydrothermal activity in the eastern side of the Campi Flegrei volcano (southern Italy). Journal of Volcanology and Geothermal Research, 2015, 290, 39-52.	0.8	23
56	Geostructure of Coroglio tuff cliff, Naples (Italy) derived from terrestrial laser scanner data. Journal of Maps, 2016, 12, 407-421.	1.0	23
57	The Evolution of Covid-19 in Italy after the Spring of 2020: An Unpredicted Summer Respite Followed by a Second Wave. International Journal of Environmental Research and Public Health, 2020, 17, 8708.	1.2	23
58	Computer simulations of pyroclastic flows on Sommaâ€"Vesuvius volcano. Journal of Volcanology and Geothermal Research, 1998, 82, 113-137.	0.8	20
59	Abruzzo, Italy, Earthquakes of April 2009: Heterogeneous Fault-Slip Models and Stress Transfer from Accurate Inversion of ENVISAT-InSAR Data. Bulletin of the Seismological Society of America, 2011, 101, 2340-2354.	1.1	19
60	Tectonic stress and renewed uplift at Campi Flegrei caldera, southern Italy: New insights from caldera drilling. Earth and Planetary Science Letters, 2015, 420, 23-29.	1.8	19
61	A 2D mechanicalâ€"thermalfluid-dynamical model for geothermal systems at calderas: an application to Campi Flegrei, Italy. Journal of Volcanology and Geothermal Research, 2001, 109, 1-12.	0.8	18
62	Seismic risk mitigation at Ischia island (Naples, Southern Italy): An innovative approach to mitigate catastrophic scenarios. Engineering Geology, 2019, 261, 105285.	2.9	17
63	Campi Flegrei unrest episodes and possible evolution towards critical phenomena. Journal of Volcanology and Geothermal Research, 2001, 109, 13-40.	0.8	16
64	A New Method for Optimization and Testing of Microseismic Networks: An Application to Campi Flegrei (Southern Italy). Bulletin of the Seismological Society of America, 2013, 103, 1679-1691.	1.1	15
65	Distributed-Temperature-Sensing Using Optical Methods: A First Application in the Offshore Area of Campi Flegrei Caldera (Southern Italy) for Volcano Monitoring. Remote Sensing, 2016, 8, 674.	1.8	15
66	Seismic and ground deformation monitoring in the seismogenetic region of the southern Apennines, Italy. Tectonophysics, 1988, 152, 165-178.	0.9	14
67	Bayesian inversion of 1994-1998 vertical displacements at Mt Etna: evidence for magma intrusion. Geophysical Journal International, 2004, 157, 935-946.	1.0	13
68	A Coulomb stress model for induced seismicity distribution due to fluid injection and withdrawal in deep boreholes. Geophysical Journal International, 2013, 195, 504-512.	1.0	13
69	Understanding volcanic hazard at the most populated caldera in the world: <scp>C</scp>ampi <scp>F</scp>legrei, <scp>S</scp>outhern <scp>I</scp>taly. Geochemistry, Geophysics, Geosystems, 2017, 18, 2004-2008.	1.0	13
70	Optical methods for monitoring of volcanoes: techniques and new perspectives. Journal of Volcanology and Geothermal Research, 2001, 109, 235-245.	0.8	12
71	First evidence of post-seismic deformation in the central Mediterranean: Crustal viscoelastic relaxation in the area of the 1980 Irpinia earthquake (Southern Italy). Geophysical Journal International, 2003, 154, F9-F14.	1.0	12
72	Volcanic hazard assessment at the Campi Flegrei caldera. Geological Society Special Publication, 2006, 269, 159-171.	0.8	12

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73	An advanced slip model for the Umbria-Marche earthquake sequence: coseismic displacements observed by SAR interferometry and model inversion. Geophysical Journal International, 2006, 164, 36-45.	1.0	12
74	Chapter 10 A New Uplift Episode at Campi Flegrei Caldera (Southern Italy): Implications for Unrest Interpretation and Eruption Hazard Evaluation. Developments in Volcanology, 2008, , 375-392.	0.5	12
75	Statistical analysis of earthquake activity at Etna volcano (March 1981 eruption). Pure and Applied Geophysics, 1985, 123, 697-705.	0.8	11
76	Long-Term Monitoring with Fiber Optics Distributed Temperature Sensing at Campi Flegrei: The Campi Flegrei Deep Drilling Project. Sensors, 2019, 19, 1009.	2.1	11
77	The â€˜Campi Flegrei Deep Drilling Projectâ€™: from Risk Mitigation to Renewable Energy Production. European Review, 2011, 19, 337-353.	0.4	10
78	Comment on â€˜Are the source models of the M 7.1 1908 Messina Straits earthquake reliable? Insights from a novel inversion and sensitivity analysis of levelling dataâ€™ by M. Aloisi, V. Bruno, F. CannavÃ², L. Ferranti, M. Mattia, C. Monaco and M. Palano. Geophysical Journal International, 2014, 197, 1399-1402.	1.0	10
79	Analysis of Sea Storm Events in the Mediterranean Sea: The Case Study of 28 December 2020 Sea Storm in the Gulf of Naples, Italy. Applied Sciences (Switzerland), 2021, 11, 11460.	1.3	10
80	Improved quantification of CO 2 emission at Campi Flegrei by combined Lagrangian Stochastic and Eulerian dispersion modelling. Atmospheric Environment, 2017, 170, 1-11.	1.9	9
81	Real-time quadrupole mass spectrometry of hydrothermal gases from the unstable Pisciarelli fumaroles (Campi Flegrei): Trends, challenges and processes. International Journal of Mass Spectrometry, 2017, 415, 44-54.	0.7	8
82	Hydrothermal versus magmatic. , 2020, , 371-406.		7
83	Time-Lapse Landform Monitoring in the Pisciarelli (Campi Flegrei-Italy) Fumarole Field Using UAV Photogrammetry. Remote Sensing, 2021, 13, 118.	1.8	7
84	Review of Recent Drilling Projects in Unconventional Geothermal Resources at Campi Flegrei Caldera, Cornubian Batholith, and Williston Sedimentary Basin. Energies, 2021, 14, 3306.	1.6	6
85	A roadmap for amphibious drilling at the Campi Flegrei caldera: insights from a MagellanPlus workshop. Scientific Drilling, 0, 26, 29-46.	1.0	6
86	Continuous in situ measurements of volcanic gases with a diode-laser-based spectrometer: CO2 and H2O concentration and soil degassing at Vulcano (Aeolian islands: Italy). Geochemical Transactions, 2007, 8, 5.	1.8	5
87	Invited perspectives: The volcanoes of Naples: how can the highest volcanic risk in the world be effectively mitigated?. Natural Hazards and Earth System Sciences, 2020, 20, 2037-2053.	1.5	5
88	The 2012 Emilia, Italy, Quasi-Consecutive Triggered Mainshocks: Implications for Seismic Hazard. Seismological Research Letters, 2014, 85, 970-976.	0.8	4
89	The 39 ka Campanian Ignimbrite eruption. , 2020, , 175-205.		4
90	3-D Modelling of Campi Flegrei Ground Deformations: Role of Caldera Boundary Discontinuities. , 2004, , 1329-1344.		4

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91	Stromboli: a natural laboratory of environmental science. Journal of Volcanology and Geothermal Research, 2002, 113, 429-442.	0.8	3
92	Optical methods in Earth Sciences. Optics and Lasers in Engineering, 2002, 37, 87-89.	2.0	2
93	Diagnosis of Time of Increased Probability (TIP) for Volcanic Earthquakes at Mt. Vesuvius. Pure and Applied Geophysics, 2006, 163, 19-39.	0.8	2
94	Seismogenic potential of withdrawal-reinjection cycles: Numerical modelling and implication on induced seismicity. Geothermics, 2020, 85, 101770.	1.5	2
95	The Newberry Deep Drilling Project (NDDP) workshop. Scientific Drilling, 0, 24, 79-86.	1.0	2
96	Testing and optimization of the seismic networks of Campi Flegrei (Southern Italy). Advances in Geosciences, 0, 36, 49-55.	12.0	1
97	Variable opening of dike-fed eruptive fissures determined from geodetic data: The 1971 and 1983 rift-zone eruptions of Kilauea Volcano, Hawaii. Journal of Geodynamics, 1998, 27, 75-88.	0.7	0
98	Real-time monitoring of volcanic emissions with a laser-based fiber spectrometer. , 2004, , .		0