Fabio Dioguardi

List of Publications by Year
in descending order

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30 papers	586 citations	687363 13 h-index	610901 24 g-index
33 all docs	33 docs citations	33 times ranked	524 citing authors

#	Article	IF	Citations
1	VIGIL: A Python tool for automatized probabilistic VolcanIc Gas dIspersion modeLling. Annals of Geophysics, 2022, 65, DM107.	1.0	3
2	Shallow-water models for volcanic granular flows: A review of strengths and weaknesses of TITAN2D and FLO2D numerical codes. Journal of Volcanology and Geothermal Research, 2021, 410, 107146.	2.1	4
3	The impact of pyroclastic density currents duration on humans: the case of the AD 79 eruption of Vesuvius. Scientific Reports, 2021, 11, 4959.	3.3	12
4	Testing gas dispersion modelling: A case study at La SoufriÃ¨re volcano (Guadeloupe, Lesser Antilles). Journal of Volcanology and Geothermal Research, 2021, 417, 107312.	2.1	6
5	Inverting sediment bedforms for evaluating the hazard of dilute pyroclastic density currents in the field. Scientific Reports, 2021, 11, 21024.	3.3	3
6	A discriminatory diagram of massive versus stratified deposits based on the sedimentation and bedload transportation rates. Experimental investigation and application to pyroclastic density currents. Sedimentology, 2020, 67, 2013-2039.	3.1	8
7	The Impact of Eruption Source Parameter Uncertainties on Ash Dispersion Forecasts During Explosive Volcanic Eruptions. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032717.	3.3	15
8	Total grain size distribution of components of fallout deposits and implications for magma fragmentation mechanisms: examples from Campi Flegrei caldera (Italy). Bulletin of Volcanology, 2020, 82, 1.	3.0	12
9	The rate of sedimentation from turbulent suspension: An experimental model with application to pyroclastic density currents and discussion on the grainâ€size dependence of flow runout. Sedimentology, 2019, 66, 129-145.	3.1	21
10	Reply to Comment by G. Bagheri and C. Bonadonna on â€œA New Oneâ€Equation Model of Fluid Drag for Irregularly Shaped Particles Valid Over a Wide Range of Reynolds Numberâ€• Journal of Geophysical Research: Solid Earth, 2019, 124, 10265-10269.	3.4	1
11	The Entrainment Rate of Nonâ€Boussinesq Hazardous Geophysical Gasâ€Particle Flows: An Experimental Model With Application to Pyroclastic Density Currents. Geophysical Research Letters, 2019, 46, 12851-12861.	4.0	5
12	PREFACE SPECIAL ISSUE: NEW ANALYTICAL TECHNIQUES FOR UNDERSTANDING VOLCANIC SYSTEMS, FROM MAGMA GENERATION TO THE EMPLACEMENT OF VOLCANIC PRODUCTS. Annals of Geophysics, 2019, 61, .	1.0	0
13	A New Oneâ€Equation Model of Fluid Drag for Irregularly Shaped Particles Valid Over a Wide Range of Reynolds Number. Journal of Geophysical Research: Solid Earth, 2018, 123, 144-156.	3.4	69
14	PYFLOW_2.0: a computer program for calculating flow properties and impact parameters of past dilute pyroclastic density currents based on field data. Bulletin of Volcanology, 2018, 80, 1.	3.0	10
15	The grain size dependency of vesicular particle shapes strongly affects the drag of particles. First results from microtomography investigations of Campi Flegrei fallout deposits. Journal of Volcanology and Geothermal Research, 2018, 353, 18-24.	2.1	10
16	REFIR- A multi-parameter system for near real-time estimates of plume-height and mass eruption rate during explosive eruptions. Journal of Volcanology and Geothermal Research, 2018, 360, 61-83.	2.1	15
17	A study on the influence of internal structures on the shape of pyroclastic particles by X-ray microtomography investigations. Annals of Geophysics, 2018, 61, .	1.0	4
18	The terminal velocity of volcanic particles with shape obtained from 3D X-ray microtomography. Journal of Volcanology and Geothermal Research, 2017, 329, 41-53.	2.1	27

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19	Hazard of pyroclastic density currents at the Campi Flegrei Caldera (Southern Italy) as deduced from the combined use of facies architecture, physical modeling and statistics of the impact parameters. Journal of Volcanology and Geothermal Research, 2015, 299, 35-53.	2.1	24
20	Local impact of dust storms around a suburban building in arid and semi-arid regions: numerical simulation examples from Dubai and Riyadh, Arabian Peninsula. Arabian Journal of Geosciences, 2015, 8, 7359-7369.	1.3	23
21	A new shape dependent drag correlation formula for non-spherical rough particles. Experiments and results. Powder Technology, 2015, 277, 222-230.	4.2	111
22	PYFLOW: A computer code for the calculation of the impact parameters of Dilute Pyroclastic Density Currents (DPDC) based on field data. Computers and Geosciences, 2014, 66, 200-210.	4.2	18
23	Volcanic jets, plumes, and collapsing fountains: evidence from large-scale experiments, with particular emphasis on the entrainment rate. Bulletin of Volcanology, 2014, 76, 1.	3.0	44
24	Integration of a new shape-dependent particleâ€“fluid drag coefficient law in the multiphase Eulerianâ€“Lagrangian code MFIX-DEM. Powder Technology, 2014, 260, 68-77.	4.2	26
25	Integration of large-scale experiments and numerical simulations for the calibration of friction laws in volcanic conduit flows. Journal of Volcanology and Geothermal Research, 2013, 250, 75-90.	2.1	9
26	A new method for the determination of the specific kinetic energy (SKE) released to pyroclastic particles at magmatic fragmentation: theory and first experimental results. Bulletin of Volcanology, 2012, 74, 895-902.	3.0	14
27	Conduit flow experiments help constraining the regime of explosive eruptions. Journal of Geophysical Research, 2010, 115, .	3.3	38
28	Experimental evidence links volcanic particle characteristics to pyroclastic flow hazard. Earth and Planetary Science Letters, 2010, 295, 314-320.	4.4	47
29	Investigating Source Conditions and Controlling Parameters of Explosive Eruptions: Some Experimental-Observational- Modelling Case Studies. , 0, , .		7
30	Drag forces at the ice-sheet bed and resistance of hard-rock obstacles: the physics of glacial ripping. Journal of Glaciology, 0, , 1-17.	2.2	0