

Tomaso Esposti Ongaro

List of Publications by Year in descending order

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50
papers

1,980
citations

236925

25
h-index

265206

42
g-index

63
all docs

63
docs citations

63
times ranked

1150
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiphase Flow Modeling of Explosive Volcanic Eruptions. Mechanical Engineering Series, 2022, , 243-281.	0.2	6
2	Calibration strategies of PDC kinetic energy models and their application to the construction of hazard maps. Bulletin of Volcanology, 2022, 84, 1.	3.0	4
3	Reconstructing Pyroclastic Currents' Source and Flow Parameters From Deposit Characteristics and Numerical Modeling: The Pozzolane Rosse Ignimbrite Case Study (Colli Albani, Italy). Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	5
4	Tsunami risk management for crustal earthquakes and non-seismic sources in Italy. Rivista Del Nuovo Cimento, 2021, 44, 69-144.	5.7	16
5	Modeling Tsunamis Generated by Submarine Landslides at Stromboli Volcano (Aeolian Islands, Italy): A Numerical Benchmark Study. Frontiers in Earth Science, 2021, 9, .	1.8	17
6	Reproducing pyroclastic density current deposits of the 79â€‰%CE eruption of the Sommaâ€‰Vesuvius volcano using the box-model approach. Solid Earth, 2021, 12, 119-139.	2.8	8
7	Synthetic benchmarking of concentrated pyroclastic current models. Bulletin of Volcanology, 2021, 83, 1.	3.0	12
8	Destructiveness of pyroclastic surges controlled by turbulent fluctuations. Nature Communications, 2021, 12, 7306.	12.8	11
9	Modelling pyroclastic density currents from a subplinian eruption at La SoufriÃ¨re de Guadeloupe (West Indies, France). Bulletin of Volcanology, 2020, 82, 76.	3.0	19
10	A framework for validation and benchmarking of pyroclastic current models. Bulletin of Volcanology, 2020, 82, 1.	3.0	16
11	Treeâ€‰Branchingâ€‰Based Enhancement of Kinetic Energy Models for Reproducing Channelization Processes of Pyroclastic Density Currents. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB019271.	3.4	16
12	Multiphase flow behaviour and hazard prediction of pyroclastic density currents. Nature Reviews Earth & Environment, 2020, 1, 348-365.	29.7	63
13	Ensemble-Based Data Assimilation of Volcanic Ash Clouds from Satellite Observations: Application to the 24 December 2018 Mt. Etna Explosive Eruption. Atmosphere, 2020, 11, 359.	2.3	22
14	The footprint of column collapse regimes on pyroclastic flow temperatures and plume heights. Nature Communications, 2019, 10, 2476.	12.8	40
15	IMEX_SfloW2D 1.0: a depth-averaged numerical flow model for pyroclastic avalanches. Geoscientific Model Development, 2019, 12, 581-595.	3.6	26
16	Dynamics of shallow hydrothermal eruptions: new insights from Vulcanoâ€™s Breccia di Commenda eruption. Bulletin of Volcanology, 2018, 80, 1.	3.0	24
17	Assessing future vent opening locations at the Sommaâ€‰Vesuvio volcanic complex: 2. Probability maps of the caldera for a future Plinian/subâ€‰Plinian event with uncertainty quantification. Journal of Geophysical Research: Solid Earth, 2017, 122, 4357-4376.	3.4	28
18	The Effects of Vent Location, Event Scale, and Time Forecasts on Pyroclastic Density Current Hazard Maps at Campi Flegrei Caldera (Italy). Frontiers in Earth Science, 2017, 5, .	1.8	48

#	ARTICLE	IF	CITATIONS
19	From magma ascent to ash generation: investigating volcanic conduit processes by integrating experiments, numerical modeling, and observations. <i>Annals of Geophysics</i> , 2017, 60, .	1.0	5
20	ASHEE-1.0: a compressible, equilibrium Eulerian model for volcanic ash plumes. <i>Geoscientific Model Development</i> , 2016, 9, 697-730.	3.6	51
21	Inter-comparison of three-dimensional models of volcanic plumes. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 326, 26-42.	2.1	38
22	Large Eddy Simulation of gas-particle kinematic decoupling and turbulent entrainment in volcanic plumes. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 326, 143-171.	2.1	52
23	Non-equilibrium processes in ash-laden volcanic plumes: new insights from 3D multiphase flow simulations. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 326, 127-142.	2.1	15
24	A fast, calibrated model for pyroclastic density currents kinematics and hazard. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 327, 257-272.	2.1	27
25	Insights into the formation and dynamics of conical plumes from one-dimensional models. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 4211-4231.	3.4	12
26	Results of the eruptive column model inter-comparison study. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 326, 2-25.	2.1	114
27	Quantifying volcanic hazard at Campi Flegrei caldera (Italy) with uncertainty assessment: 1. Vent opening maps. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 2309-2329.	3.4	101
28	Quantifying volcanic hazard at Campi Flegrei caldera (Italy) with uncertainty assessment: 2. Pyroclastic density current invasion maps. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 2330-2349.	3.4	79
29	Pyroclastic Density Current Hazards and Risk. , 2015, , 109-140.		18
30	Volcanic plume vent conditions retrieved from infrared images: A forward and inverse modeling approach. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 300, 129-147.	2.1	24
31	Vulcanian Eruptions. , 2015, , 505-518.		34
32	Pyroclastic Density Currents. , 2015, , 617-629.		40
33	Influence of grain-size distribution on the dynamics of underexpanded volcanic jets. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 285, 60-80.	2.1	26
34	A semi-implicit, second-order-accurate numerical model for multiphase underexpanded volcanic jets. <i>Geoscientific Model Development</i> , 2013, 6, 1905-1924.	3.6	28
35	Multiphase flow dynamics of pyroclastic density currents during the May 18, 1980 lateral blast of Mount St. Helens. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	55
36	Multiphase-flow numerical modeling of the 18 May 1980 lateral blast at Mount St. Helens, USA. <i>Geology</i> , 2011, 39, 535-538.	4.4	34

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37	Lagrangian modeling of large volcanic particles: Application to Vulcanian explosions. Journal of Geophysical Research, 2010, 115, .	3.3	33
38	Developing an Event Tree for probabilistic hazard and risk assessment at Vesuvius. Journal of Volcanology and Geothermal Research, 2008, 178, 397-415.	2.1	179
39	Transient 3D numerical simulations of column collapse and pyroclastic density current scenarios at Vesuvius. Journal of Volcanology and Geothermal Research, 2008, 178, 378-396.	2.1	83
40	Fluid dynamics of the 1997 Boxing Day volcanic blast on Montserrat, West Indies. Journal of Geophysical Research, 2008, 113, .	3.3	46
41	4D simulation of explosive eruption dynamics at Vesuvius. Geophysical Research Letters, 2007, 34, .	4.0	58
42	A parallel multiphase flow code for the 3D simulation of explosive volcanic eruptions. Parallel Computing, 2007, 33, 541-560.	2.1	85
43	An immersed boundary method for compressible multiphase flows: application to the dynamics of pyroclastic density currents. Computational Geosciences, 2007, 11, 183-198.	2.4	18
44	Influence of carbon dioxide on the large-scale dynamics of magmatic eruptions at Phlegrean Fields (Italy). Geophysical Research Letters, 2006, 33, .	4.0	7
45	Pyroclastic flow dynamics and hazard in a caldera setting: Application to Phlegrean Fields (Italy). Geochemistry, Geophysics, Geosystems, 2006, 7, n/a-n/a.	2.5	28
46	An interactive virtual environment to communicate vesuvius eruptions numerical simulations and Pompeii history. , 2006, , .		3
47	High performance computing simulations of pyroclastic flows. Computer Physics Communications, 2005, 169, 454-456.	7.5	3
48	Multiparticle simulation of collapsing volcanic columns and pyroclastic flow. Journal of Geophysical Research, 2003, 108, .	3.3	153
49	Pyroclastic flow hazard assessment at Vesuvius (Italy) by using numerical modeling. I. Large-scale dynamics. Bulletin of Volcanology, 2002, 64, 155-177.	3.0	72
50	Pyroclastic flow hazard assessment at Vesuvius (Italy) by using numerical modeling. II. Analysis of flow variables. Bulletin of Volcanology, 2002, 64, 178-191.	3.0	65