

# Giuseppe Bilotta

## List of Publications by Year in descending order

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52  
papers

1,156  
citations

394286

19  
h-index

395590

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g-index

68  
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docs citations

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times ranked

978  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Impact of Dynamic Emissivityâ€™Temperature Trends on Spaceborne Data: Applications to the 2001 Mount Etna Eruption. <i>Remote Sensing</i> , 2022, 14, 1641.	1.8	5
2	Effusion Rates on Mt. Etna and Their Influence on Lava Flow Hazard Assessment. <i>Remote Sensing</i> , 2022, 14, 1366.	1.8	9
3	Modeling of Geophysical Flows through GPUFLOW. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 4395.	1.3	6
4	A numerically robust, parallel-friendly variant of BiCGSTAB for the semi-implicit integration of the viscous term in Smoothed Particle Hydrodynamics. <i>Journal of Computational Physics</i> , 2022, 466, 111413.	1.9	3
5	Combining Radar and Optical Satellite Imagery with Machine Learning to Map Lava Flows at Mount Etna and Fogo Island. <i>Energies</i> , 2021, 14, 197.	1.6	17
6	A particle swarm optimizationâ€™based heuristic to optimize the configuration of artificial barriers for the mitigation of lava flow risk. <i>Environmental Modelling and Software</i> , 2021, 139, 105023.	1.9	4
7	Overcoming excessive numerical dissipation in SPH modeling of water waves. <i>Coastal Engineering</i> , 2021, 170, 104018.	1.7	22
8	Volcanic Hazard Monitoring Using Multi-Source Satellite Imagery. , 2021, , .		2
9	Living at the edge of an active volcano: Risk from lava flows on Mt. Etna. <i>Bulletin of the Geological Society of America</i> , 2020, 132, 1615-1625.	1.6	26
10	How the variety of satellite remote sensing data over volcanoes can assist hazard monitoring efforts: The 2011 eruption of Nabro volcano. <i>Remote Sensing of Environment</i> , 2020, 236, 111426.	4.6	38
11	Accuracy Improvements for Single Precision Implementations of the SPH Method. <i>International Journal of Computational Fluid Dynamics</i> , 2020, 34, 774-787.	0.5	8
12	The VEI 2 Christmas 2018 Etna Eruption: A Small But Intense Eruptive Event or the Starting Phase of a Larger One?. <i>Remote Sensing</i> , 2020, 12, 905.	1.8	36
13	Overflows and Pyroclastic Density Currents in March-April 2020 at Stromboli Volcano Detected by Remote Sensing and Seismic Monitoring Data. <i>Remote Sensing</i> , 2020, 12, 3010.	1.8	29
14	Recognizing Eruptions of Mount Etna through Machine Learning Using Multiperspective Infrared Images. <i>Remote Sensing</i> , 2020, 12, 970.	1.8	14
15	3D lava flow mapping in volcanic areas using multispectral and stereo optical satellite data. <i>AIP Conference Proceedings</i> , 2020, , .	0.3	4
16	Satellite-Based Reconstruction of the Volcanic Deposits during the December 2015 Etna Eruption. <i>Data</i> , 2019, 4, 120.	1.2	13
17	Mapping Recent Lava Flows at Mount Etna Using Multispectral Sentinel-2 Images and Machine Learning Techniques. <i>Remote Sensing</i> , 2019, 11, 1916.	1.8	33
18	Design and Implementation of Particle Systems for Meshfree Methods with High Performance. , 2019, , .		2

#	ARTICLE	IF	CITATIONS
19	Changing Eruptive Styles at the South-East Crater of Mount Etna: Implications for Assessing Lava Flow Hazards. <i>Frontiers in Earth Science</i> , 2019, 7, .	0.8	17
20	Improving cloud detection with imperfect satellite images using an artificial neural network approach. , 2019, , .		0
21	Smart Decision Support Systems for Volcanic Applications. <i>Energies</i> , 2019, 12, 1216.	1.6	10
22	Influence of topographic data uncertainties and model resolution on the numerical simulation of lava flows. <i>Environmental Modelling and Software</i> , 2019, 112, 1-15.	1.9	25
23	Semi-implicit 3D SPH on GPU for lava flows. <i>Journal of Computational Physics</i> , 2018, 375, 854-870.	1.9	14
24	Mapping Volcanic Deposits of the 2011â€“2015 Etna Eruptive Events Using Satellite Remote Sensing. <i>Frontiers in Earth Science</i> , 2018, 6, .	0.8	48
25	Satellite-driven modeling approach for monitoring lava flow hazards during the 2017 Etna eruption. <i>Annals of Geophysics</i> , 2018, 61, .	0.5	21
26	Preliminary validation of lava benchmark tests on the GPUSPH particle engine. <i>Annals of Geophysics</i> , 2018, 61, .	0.5	5
27	3D Lava flow mapping of the 17â€“25 May 2016 Etna eruption using tri-stereo optical satellite data. <i>Annals of Geophysics</i> , 2018, 61, .	0.5	18
28	Simulating Complex Fluids with Smoothed Particle Hydrodynamics. <i>Annals of Geophysics</i> , 2017, 60, .	0.5	2
29	HOTSAT: a multiplatform system for the thermal monitoring of volcanic activity using satellite data. <i>Geological Society Special Publication</i> , 2016, 426, 207-221.	0.8	33
30	GPUSPH: a Smoothed Particle Hydrodynamics model for the thermal and rheological evolution of lava flows. <i>Geological Society Special Publication</i> , 2016, 426, 387-408.	0.8	18
31	Testing a geographical information system for damage and evacuation assessment during an effusive volcanic crisis. <i>Geological Society Special Publication</i> , 2016, 426, 649-672.	0.8	7
32	Simulation of Nearshore Tsunami Breaking by Smoothed Particle Hydrodynamics Method. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2016, 142, .	0.5	33
33	MAGFLOW: a physics-based model for the dynamics of lava-flow emplacement. <i>Geological Society Special Publication</i> , 2016, 426, 357-373.	0.8	29
34	SPH for the Simulation of a Dam-Break with Floating Objects. <i>Mathematics in Industry</i> , 2016, , 889-897.	0.1	0
35	SPH modeling of dynamic impact of tsunami bore on bridge piers. <i>Coastal Engineering</i> , 2015, 104, 26-42.	1.7	95
36	Three-Dimensional SPH Modeling of a Bar/Rip Channel System. <i>Journal of Waterway, Port, Coastal and Ocean Engineering</i> , 2014, 140, 82-99.	0.5	20

#	ARTICLE	IF	CITATIONS
37	Advances in Multi-GPU Smoothed Particle Hydrodynamics Simulations. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 43-52.	4.0	47
38	Optimizing Satellite Monitoring of Volcanic Areas Through GPUs and Multi-Core CPUs Image Processing: An OpenCL Case Study. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 2445-2452.	2.3	6
39	Lava flow hazards at Mount Etna: constraints imposed by eruptive history and numerical simulations. Scientific Reports, 2013, 3, 3493.	1.6	61
40	Probabilistic modeling of future volcanic eruptions at Mount Etna. Journal of Geophysical Research: Solid Earth, 2013, 118, 1925-1935.	1.4	48
41	Smoothed Particle Hydrodynamics Simulations on Multi-GPU Systems. , 2012, , .		10
42	APPLICATION OF GPU SMOOTH PARTICLE HYDRODYNAMICS: WAVE RUNUP AND OVERTOPPING ON COMPOSITE SLOPES. Coastal Engineering Proceedings, 2012, 1, 74.	0.1	1
43	Sensitivity analysis of the MAGFLOW Cellular Automaton model for lava flow simulation. Environmental Modelling and Software, 2012, 35, 122-131.	1.9	44
44	SPH MODELING OF MEAN VELOCITY CIRCULATION IN A RIP CURRENT SYSTEM. Coastal Engineering Proceedings, 2012, 1, 37.	0.1	2
45	Moving least-squares corrections for smoothed particle hydrodynamics. Annals of Geophysics, 2011, 54, .	0.5	1
46	Porting and optimizing MAGFLOW on CUDA. Annals of Geophysics, 2011, 54, .	0.5	10
47	Numerical simulation of lava flow using a GPU SPH model. Annals of Geophysics, 2011, 54, .	0.5	17
48	LAV@HAZARD: a web-GIS interface for volcanic hazard assessment. Annals of Geophysics, 2011, 54, .	0.5	16
49	THREE-DIMENSIONAL MODELING OF LONG-WAVE RUNUP: SIMULATION OF TSUNAMI INUNDATION WITH GPU-SPHYSICS. Coastal Engineering Proceedings, 2011, 1, 8.	0.1	6
50	Scalable multi-GPU implementation of the MAGFLOW simulator. Annals of Geophysics, 2011, 54, .	0.5	3
51	SPH on GPU with CUDA. Journal of Hydraulic Research/De Recherches Hydrauliques, 2010, 48, 74-79.	0.7	200
52	Structural Simulation of a Bone-Prosthesis System of the Knee Joint. Sensors, 2008, 8, 5897-5926.	2.1	5