

# Giuseppe Bilotta

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3068798/publications.pdf>

Version: 2024-02-01

52  
papers

1,156  
citations

394286  
19  
h-index

395590  
33  
g-index

68  
all docs

68  
docs citations

68  
times ranked

978  
citing authors

#	ARTICLE	IF	CITATIONS
1	SPH on GPU with CUDA. Journal of Hydraulic Research/De Recherches Hydrauliques, 2010, 48, 74-79.	0.7	200
2	SPH modeling of dynamic impact of tsunami bore on bridge piers. Coastal Engineering, 2015, 104, 26-42.	1.7	95
3	Lava flow hazards at Mount Etna: constraints imposed by eruptive history and numerical simulations. Scientific Reports, 2013, 3, 3493.	1.6	61
4	Probabilistic modeling of future volcanic eruptions at Mount Etna. Journal of Geophysical Research: Solid Earth, 2013, 118, 1925-1935.	1.4	48
5	Mapping Volcanic Deposits of the 2011–2015 Etna Eruptive Events Using Satellite Remote Sensing. Frontiers in Earth Science, 2018, 6, .	0.8	48
6	Advances in Multi-GPU Smoothed Particle Hydrodynamics Simulations. IEEE Transactions on Parallel and Distributed Systems, 2014, 25, 43-52.	4.0	47
7	Sensitivity analysis of the MAGFLOW Cellular Automaton model for lava flow simulation. Environmental Modelling and Software, 2012, 35, 122-131.	1.9	44
8	How the variety of satellite remote sensing data over volcanoes can assist hazard monitoring efforts: The 2011 eruption of Nabro volcano. Remote Sensing of Environment, 2020, 236, 111426.	4.6	38
9	The VEI 2 Christmas 2018 Etna Eruption: A Small But Intense Eruptive Event or the Starting Phase of a Larger One?. Remote Sensing, 2020, 12, 905.	1.8	36
10	HOTSAT: a multiplatform system for the thermal monitoring of volcanic activity using satellite data. Geological Society Special Publication, 2016, 426, 207-221.	0.8	33
11	Simulation of Nearshore Tsunami Breaking by Smoothed Particle Hydrodynamics Method. Journal of Waterway, Port, Coastal and Ocean Engineering, 2016, 142, .	0.5	33
12	Mapping Recent Lava Flows at Mount Etna Using Multispectral Sentinel-2 Images and Machine Learning Techniques. Remote Sensing, 2019, 11, 1916.	1.8	33
13	MAGFLOW: a physics-based model for the dynamics of lava-flow emplacement. Geological Society Special Publication, 2016, 426, 357-373.	0.8	29
14	Overflows and Pyroclastic Density Currents in March-April 2020 at Stromboli Volcano Detected by Remote Sensing and Seismic Monitoring Data. Remote Sensing, 2020, 12, 3010.	1.8	29
15	Living at the edge of an active volcano: Risk from lava flows on Mt. Etna. Bulletin of the Geological Society of America, 2020, 132, 1615-1625.	1.6	26
16	Influence of topographic data uncertainties and model resolution on the numerical simulation of lava flows. Environmental Modelling and Software, 2019, 112, 1-15.	1.9	25
17	Overcoming excessive numerical dissipation in SPH modeling of water waves. Coastal Engineering, 2021, 170, 104018.	1.7	22
18	Satellite-driven modeling approach for monitoring lava flow hazards during the 2017 Etna eruption. Annals of Geophysics, 2018, 61, .	0.5	21

#	ARTICLE	IF	CITATIONS
19	Three-Dimensional SPH Modeling of a Bar/Rip Channel System. Journal of Waterway, Port, Coastal and Ocean Engineering, 2014, 140, 82-99.	0.5	20
20	GPUSPH: a Smoothed Particle Hydrodynamics model for the thermal and rheological evolution of lava flows. Geological Society Special Publication, 2016, 426, 387-408.	0.8	18
21	3D Lava flow mapping of the 17 <sup>th</sup> –25 May 2016 Etna eruption using tri-stereo optical satellite data. Annals of Geophysics, 2018, 61, .	0.5	18
22	Changing Eruptive Styles at the South-East Crater of Mount Etna: Implications for Assessing Lava Flow Hazards. Frontiers in Earth Science, 2019, 7, .	0.8	17
23	Combining Radar and Optical Satellite Imagery with Machine Learning to Map Lava Flows at Mount Etna and Fogo Island. Energies, 2021, 14, 197.	1.6	17
24	Numerical simulation of lava flow using a GPU SPH model. Annals of Geophysics, 2011, 54, .	0.5	17
25	LAV@HAZARD: a web-GIS interface for volcanic hazard assessment. Annals of Geophysics, 2011, 54, .	0.5	16
26	Semi-implicit 3D SPH on GPU for lava flows. Journal of Computational Physics, 2018, 375, 854-870.	1.9	14
27	Recognizing Eruptions of Mount Etna through Machine Learning Using Multiperspective Infrared Images. Remote Sensing, 2020, 12, 970.	1.8	14
28	Satellite-Based Reconstruction of the Volcanic Deposits during the December 2015 Etna Eruption. Data, 2019, 4, 120.	1.2	13
29	Smoothed Particle Hydrodynamics Simulations on Multi-GPU Systems. , 2012, , .		10
30	Smart Decision Support Systems for Volcanic Applications. Energies, 2019, 12, 1216.	1.6	10
31	Porting and optimizing MAGFLOW on CUDA. Annals of Geophysics, 2011, 54, .	0.5	10
32	Effusion Rates on Mt. Etna and Their Influence on Lava Flow Hazard Assessment. Remote Sensing, 2022, 14, 1366.	1.8	9
33	Accuracy Improvements for Single Precision Implementations of the SPH Method. International Journal of Computational Fluid Dynamics, 2020, 34, 774-787.	0.5	8
34	Testing a geographical information system for damage and evacuation assessment during an effusive volcanic crisis. Geological Society Special Publication, 2016, 426, 649-672.	0.8	7
35	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
36	THREE-DIMENSIONAL MODELING OF LONG-WAVE RUNUP: SIMULATION OF TSUNAMI INUNDATION WITH GPU-SPHYSICS. Coastal Engineering Proceedings, 2011, 1, 8.	0.1	6

#	ARTICLE	IF	CITATIONS
37	Modeling of Geophysical Flows through GPUFLOW. Applied Sciences (Switzerland), 2022, 12, 4395.	1.3	6
38	Structural Simulation of a Bone-Prosthesis System of the Knee Joint. Sensors, 2008, 8, 5897-5926.	2.1	5
39	Preliminary validation of lava benchmark tests on the GPUSPH particle engine. Annals of Geophysics, 2018, 61, .	0.5	5
40	The Impact of Dynamic Emissivityâ€™Temperature Trends on Spaceborne Data: Applications to the 2001 Mount Etna Eruption. Remote Sensing, 2022, 14, 1641.	1.8	5
41	A particle swarm optimizationâ€™based heuristic to optimize the configuration of artificial barriers for the mitigation of lava flow risk. Environmental Modelling and Software, 2021, 139, 105023.	1.9	4
42	3D lava flow mapping in volcanic areas using multispectral and stereo optical satellite data. AIP Conference Proceedings, 2020, , .	0.3	4
43	Scalable multi-GPU implementation of the MAGFLOW simulator. Annals of Geophysics, 2011, 54, .	0.5	3
44	A numerically robust, parallel-friendly variant of BiCGSTAB for the semi-implicit integration of the viscous term in Smoothed Particle Hydrodynamics. Journal of Computational Physics, 2022, 466, 111413.	1.9	3
45	Design and Implementation of Particle Systems for Meshfree Methods with High Performance. , 2019, , .		2
46	Volcanic Hazard Monitoring Using Multi-Source Satellite Imagery. , 2021, , .		2
47	SPH MODELING OF MEAN VELOCITY CIRCULATION IN A RIP CURRENT SYSTEM. Coastal Engineering Proceedings, 2012, 1, 37.	0.1	2
48	Simulating Complex Fluids with Smoothed Particle Hydrodynamics. Annals of Geophysics, 2017, 60, .	0.5	2
49	Moving least-squares corrections for smoothed particle hydrodynamics. Annals of Geophysics, 2011, 54, .	0.5	1
50	APPLICATION OF GPU SMOOTH PARTICLE HYDRODYNAMICS: WAVE RUNUP AND OVERTOPPING ON COMPOSITE SLOPES. Coastal Engineering Proceedings, 2012, 1, 74.	0.1	1
51	Improving cloud detection with imperfect satellite images using an artificial neural network approach. , 2019, , .		0
52	SPH for the Simulation of a Dam-Break with Floating Objects. Mathematics in Industry, 2016, , 889-897.	0.1	0