Mirco Zaccariotto

List of Publications by Year
in descending order

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58	2,604	236833	214721
papers	citations	25 h-index	47 g-index

58	58	58	1595
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the nucleus structure and activity of comet 67P/Churyumov-Gerasimenko. Science, 2015, 347, aaa1044.	6.0	366
2	OSIRIS â€“ The Scientific Camera System Onboard Rosetta. Space Science Reviews, 2007, 128, 433-506.	3.7	286
3	Coupling of FEM meshes with Peridynamic grids. Computer Methods in Applied Mechanics and Engineering, 2018, 330, 471-497.	3.4	169
4	An effective way to couple FEM meshes and Peridynamics grids for the solution of static equilibrium problems. Mechanics Research Communications, 2016, 76, 41-47.	1.0	140
5	Crack propagation with adaptive grid refinement in 2D peridynamics. International Journal of Fracture, 2014, 190, 1-22.	1.1	133
6	Static solution of crack propagation problems in Peridynamics. Computer Methods in Applied Mechanics and Engineering, 2019, 346, 126-151.	3.4	127
7	A coupled meshless finite point/Peridynamic method for 2D dynamic fracture analysis. International Journal of Mechanical Sciences, 2016, 119, 419-431.	3.6	119
8	Hybrid FEM and peridynamic simulation of hydraulic fracture propagation in saturated porous media. Computer Methods in Applied Mechanics and Engineering, 2020, 366, 113101.	3.4	100
9	Linearized stateâ€based peridynamics for 2â€D problems. International Journal for Numerical Methods in Engineering, 2016, 108, 1174-1197.	1.5	92
10	Examples of applications of the peridynamic theory to the solution of static equilibrium problems. Aeronautical Journal, 2015, 119, 677-700.	1.1	78
11	An adaptive multi-grid peridynamic method for dynamic fracture analysis. International Journal of Mechanical Sciences, 2018, 144, 600-617.	3.6	76
12	SIMBIO-SYS: The spectrometer and imagers integrated observatory system for the BepiColombo planetary orbiter. Planetary and Space Science, 2010, 58, 125-143.	0.9	70
13	A generalized finite difference method based on the Peridynamic differential operator for the solution of problems in bounded and unbounded domains. Computer Methods in Applied Mechanics and Engineering, 2019, 343, 100-126.	3.4	68
14	Dependence of crack paths on the orientation of regular 2D peridynamic grids. Engineering Fracture Mechanics, 2016, 160, 248-263.	2.0	55
15	OpenCL implementation of a high performance 3D Peridynamic model on graphics accelerators. Computers and Mathematics With Applications, 2017, 74, 1856-1870.	1.4	52
16	Coupling of FEM and ordinary state-based peridynamics for brittle failure analysis in 3D. Mechanics of Advanced Materials and Structures, 2021, 28, 875-890.	1.5	50
17	An enhanced coupling of PD grids to FE meshes. Mechanics Research Communications, 2017, 84, 125-135.	1.0	49
18	A discussion on failure criteria for ordinary state-based peridynamics. Engineering Fracture Mechanics, 2017, 186, 378-398.	2.0	48

#	Article	IF	Citations
19	Coupling of 2D discretized Peridynamics with a meshless method based on classical elasticity using switching of nodal behaviour. Engineering Computations, 2017, 34, 1334-1366.	0.7	44
20	Comparison of self-healing ionomer to aluminium-alloy bumpers for protecting spacecraft equipment from space debris impacts. Advances in Space Research, 2013, 51, 930-940.	1.2	37
21	AquEYE, a single photon counting photometer for astronomy. Journal of Modern Optics, 2009, 56, 261-272.	0.6	34
22	Experimental and numerical fracture analysis of the plain and polyvinyl alcohol fiber-reinforced ultra-high-performance concrete structures. Theoretical and Applied Fracture Mechanics, 2020, 108, 102566.	2.1	32
23	A novel and effective way to impose boundary conditions and to mitigate the surface effect in stateâ€based Peridynamics. International Journal for Numerical Methods in Engineering, 2021, 122, 5773-5811.	1.5	32
24	Overall equilibrium in the coupling of peridynamics and classical continuum mechanics. Computer Methods in Applied Mechanics and Engineering, 2021, 381, 113515.	3.4	32
25	Application of the peridynamic differential operator to the solution of sloshing problems in tanks. Engineering Computations, 2018, 36, 45-83.	0.7	28
26	Numerical simulation of forerunning fracture in saturated porous solids with hybrid FEM/Peridynamic model. Computers and Geotechnics, 2021, 133, 104024.	2.3	28
27	Simulation of chemo-thermo-mechanical problems in cement-based materials with Peridynamics. Meccanica, 2021, 56, 2357-2379.	1.2	25
28	The meshless finite point method for transient elastodynamic problems. Acta Mechanica, 2017, 228, 3581-3593.	1.1	24
29	Local Dirichlet-type absorbing boundary conditions for transient elastic wave propagation problems. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112856.	3.4	20
30	Fatigue degradation strategies to simulate crack propagation using peridynamic based computational methods. Latin American Journal of Solids and Structures, 2019, 16, .	0.6	19
31	A local collocation method to construct Dirichlet-type absorbing boundary conditions for transient scalar wave propagation problems. Computer Methods in Applied Mechanics and Engineering, 2019, 356, 629-651.	3.4	18
32	THE STEREO CAMERA ON THE BEPICOLOMBO ESA/JAXA MISSION: A NOVEL APPROACH. , 2009, , 305-322.		16
33	Artificial neural networks for impact force reconstruction on composite plates and relevant uncertainty propagation. IEEE Aerospace and Electronic Systems Magazine, 2018, 33, 38-47.	2.3	15
34	Application of Proper Orthogonal Decomposition to Damage Detection in Homogeneous Plates and Composite Beams. Journal of Engineering Mechanics - ASCE, 2013, 139, 1539-1550.	1.6	14
35	Analysis of the HASI accelerometers data measured during the impact phase of the Huygens probe on the surface of Titan by means of a simulation with a finite-element model. Planetary and Space Science, 2008, 56, 715-727.	0.9	13
36	A new method based on Taylor expansion and nearest-node strategy to impose Dirichlet and Neumann boundary conditions in ordinary state-based Peridynamics. Computational Mechanics, 2022, 70, 1-27.	2.2	12

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37	Mars and Moon exploration passing through the European Precision Landing GNC Test Facility. Acta Astronautica, 2008, 63, 74-90.	1.7	10
38	Design and Validation of a Carbon-Fiber Collapsible Hinge for Space Applications: A Deployable Boom. Journal of Mechanisms and Robotics, 2016, 8, .	1.5	10
39	Wave propagation improvement in two-dimensional bond-based peridynamics model. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 2542-2553.	1.1	9
40	Application of Peridynamic Theory to Nanocomposite Materials. Advanced Materials Research, 0, 1016, 44-48.	0.3	8
41	Accuracy Analysis of a Pointing Mechanism for Communication Applications. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 3499-3509.	2.4	7
42	Aqueye Plus: a very fast single photon counter for astronomical photometry to quantum limits equipped with an Optical Vortex coronagraph. Proceedings of SPIE, 2013, , .	0.8	7
43	Response of a helmet liner under biaxial loading. Polymer Testing, 2018, 72, 110-114.	2.3	5
44	High-performance shutter for space applications. , 2002, , .		4
45	Development of long deployable dipole antennas for Sounder Radars in ThalesAleniaSpace-Italia. , 2013, , .		3
46	Aqueye+: a wavefront sensorless adaptive optics system for narrow field coronagraphy. Proceedings of SPIE, 2013, , .	0.8	3
47	The JANUS camera onboard JUICE mission for Jupiter system optical imaging. Proceedings of SPIE, 2014, , .	0.8	3
48	A contribution to the definition of a new method to predict the catastrophic disintegration of spacecraft after collision with large orbital debris. Acta Astronautica, 2016, 127, 95-102.	1.7	2
49	Impact force reconstruction in composite panels. Procedia Structural Integrity, 2017, 5, 107-114.	0.3	2
50	Reactive Simulation for Real-Time Obstacle Avoidance. , 2008, , 249-261.		2
51	Thermomechanical design optimization and acceptance of the Wide-Angle Camera for the Rosetta mission. , 2003, 4854, 425.		1
52	Adaptive-randomised self-calibration of electro-mechanical shutters for space imaging. Mechanical Systems and Signal Processing, 2006, 20, 2305-2320.	4.4	1
53	Very fast photon counting photometers for astronomical applications: IquEYE for the ESO 3.5m New Technology Telescope. , 2009, , .		1
54	Mixed-Mode Crack Patterns in Ordinary State-Based Peridynamics. Key Engineering Materials, 0, 665, 53-56.	0.4	1

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55	Artificial neural networks for impact force reconstruction on composite plates. , 2017, , .		1
56	Coupling of CCM and PD in a meshless way. , 2021, , 113-138.		1
57	A coupled peridynamic and finite strip method for analysis of in-plane behaviors of plates with discontinuities. Engineering With Computers, 2023, 39, 2791-2806.	3.5	1
58	3D fluidâ€“structure interaction with fracturing: A new method with applications. Computer Methods in Applied Mechanics and Engineering, 2022, 398, 115210.	3.4	1