

# Mirco Zaccariotto

## List of Publications by Year in descending order

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58  
papers

2,604  
citations

236833

25  
h-index

214721

47  
g-index

58  
all docs

58  
docs citations

58  
times ranked

1595  
citing authors

#	ARTICLE	IF	CITATIONS
1	A coupled peridynamic and finite strip method for analysis of in-plane behaviors of plates with discontinuities. <i>Engineering With Computers</i> , 2023, 39, 2791-2806.	3.5	1
2	A new method based on Taylor expansion and nearest-node strategy to impose Dirichlet and Neumann boundary conditions in ordinary state-based Peridynamics. <i>Computational Mechanics</i> , 2022, 70, 1-27.	2.2	12
3	3D fluid-structure interaction with fracturing: A new method with applications. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 398, 115210.	3.4	1
4	Coupling of FEM and ordinary state-based peridynamics for brittle failure analysis in 3D. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 875-890.	1.5	50
5	Coupling of CCM and PD in a meshless way. , 2021, , 113-138.		1
6	Numerical simulation of forerunning fracture in saturated porous solids with hybrid FEM/Peridynamic model. <i>Computers and Geotechnics</i> , 2021, 133, 104024.	2.3	28
7	Simulation of chemo-thermo-mechanical problems in cement-based materials with Peridynamics. <i>Meccanica</i> , 2021, 56, 2357-2379.	1.2	25
8	A novel and effective way to impose boundary conditions and to mitigate the surface effect in state-based Peridynamics. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 5773-5811.	1.5	32
9	Overall equilibrium in the coupling of peridynamics and classical continuum mechanics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 381, 113515.	3.4	32
10	Wave propagation improvement in two-dimensional bond-based peridynamics model. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2021, 235, 2542-2553.	1.1	9
11	Hybrid FEM and peridynamic simulation of hydraulic fracture propagation in saturated porous media. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 366, 113101.	3.4	100
12	Experimental and numerical fracture analysis of the plain and polyvinyl alcohol fiber-reinforced ultra-high-performance concrete structures. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 108, 102566.	2.1	32
13	Local Dirichlet-type absorbing boundary conditions for transient elastic wave propagation problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 362, 112856.	3.4	20
14	A local collocation method to construct Dirichlet-type absorbing boundary conditions for transient scalar wave propagation problems. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 356, 629-651.	3.4	18
15	Fatigue degradation strategies to simulate crack propagation using peridynamic based computational methods. <i>Latin American Journal of Solids and Structures</i> , 2019, 16, .	0.6	19
16	A generalized finite difference method based on the Peridynamic differential operator for the solution of problems in bounded and unbounded domains. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 343, 100-126.	3.4	68
17	Static solution of crack propagation problems in Peridynamics. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 346, 126-151.	3.4	127
18	Coupling of FEM meshes with Peridynamic grids. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 330, 471-497.	3.4	169

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19	Application of the peridynamic differential operator to the solution of sloshing problems in tanks. <i>Engineering Computations</i> , 2018, 36, 45-83.	0.7	28
20	Response of a helmet liner under biaxial loading. <i>Polymer Testing</i> , 2018, 72, 110-114.	2.3	5
21	Artificial neural networks for impact force reconstruction on composite plates and relevant uncertainty propagation. <i>IEEE Aerospace and Electronic Systems Magazine</i> , 2018, 33, 38-47.	2.3	15
22	An adaptive multi-grid peridynamic method for dynamic fracture analysis. <i>International Journal of Mechanical Sciences</i> , 2018, 144, 600-617.	3.6	76
23	A discussion on failure criteria for ordinary state-based peridynamics. <i>Engineering Fracture Mechanics</i> , 2017, 186, 378-398.	2.0	48
24	Impact force reconstruction in composite panels. <i>Procedia Structural Integrity</i> , 2017, 5, 107-114.	0.3	2
25	OpenCL implementation of a high performance 3D Peridynamic model on graphics accelerators. <i>Computers and Mathematics With Applications</i> , 2017, 74, 1856-1870.	1.4	52
26	Coupling of 2D discretized Peridynamics with a meshless method based on classical elasticity using switching of nodal behaviour. <i>Engineering Computations</i> , 2017, 34, 1334-1366.	0.7	44
27	Artificial neural networks for impact force reconstruction on composite plates. , 2017, , .		1
28	The meshless finite point method for transient elastodynamic problems. <i>Acta Mechanica</i> , 2017, 228, 3581-3593.	1.1	24
29	An enhanced coupling of PD grids to FE meshes. <i>Mechanics Research Communications</i> , 2017, 84, 125-135.	1.0	49
30	A contribution to the definition of a new method to predict the catastrophic disintegration of spacecraft after collision with large orbital debris. <i>Acta Astronautica</i> , 2016, 127, 95-102.	1.7	2
31	Linearized state-based peridynamics for 2D problems. <i>International Journal for Numerical Methods in Engineering</i> , 2016, 108, 1174-1197.	1.5	92
32	An effective way to couple FEM meshes and Peridynamics grids for the solution of static equilibrium problems. <i>Mechanics Research Communications</i> , 2016, 76, 41-47.	1.0	140
33	A coupled meshless finite point/Peridynamic method for 2D dynamic fracture analysis. <i>International Journal of Mechanical Sciences</i> , 2016, 119, 419-431.	3.6	119
34	Design and Validation of a Carbon-Fiber Collapsible Hinge for Space Applications: A Deployable Boom. <i>Journal of Mechanisms and Robotics</i> , 2016, 8, .	1.5	10
35	Dependence of crack paths on the orientation of regular 2D peridynamic grids. <i>Engineering Fracture Mechanics</i> , 2016, 160, 248-263.	2.0	55
36	Examples of applications of the peridynamic theory to the solution of static equilibrium problems. <i>Aeronautical Journal</i> , 2015, 119, 677-700.	1.1	78

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37	On the nucleus structure and activity of comet 67P/Churyumov-Gerasimenko. Science, 2015, 347, aaa1044.	6.0	366
38	The JANUS camera onboard JUICE mission for Jupiter system optical imaging. Proceedings of SPIE, 2014, , .	0.8	3
39	Crack propagation with adaptive grid refinement in 2D peridynamics. International Journal of Fracture, 2014, 190, 1-22.	1.1	133
40	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
41	Development of long deployable dipole antennas for Sounder Radars in ThalesAleniaSpace-Italia. , 2013, , .		3
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	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
44	Aqueye+: a wavefront sensorless adaptive optics system for narrow field coronagraphy. Proceedings of SPIE, 2013, , .	0.8	3
45	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
46	AquEYE, a single photon counting photometer for astronomy. Journal of Modern Optics, 2009, 56, 261-272.	0.6	34
47	Accuracy Analysis of a Pointing Mechanism for Communication Applications. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 3499-3509.	2.4	7
48	Very fast photon counting photometers for astronomical applications: IquEYE for the ESO 3.5m New Technology Telescope. , 2009, , .		1
49	THE STEREO CAMERA ON THE BEPICOLOMBO ESA/JAXA MISSION: A NOVEL APPROACH. , 2009, , 305-322.		16
50	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
51	Mars and Moon exploration passing through the European Precision Landing GNC Test Facility. Acta Astronautica, 2008, 63, 74-90.	1.7	10
52	Reactive Simulation for Real-Time Obstacle Avoidance. , 2008, , 249-261.		2
53	OSIRIS â€œ The Scientific Camera System Onboard Rosetta. Space Science Reviews, 2007, 128, 433-506.	3.7	286
54	Adaptive-randomised self-calibration of electro-mechanical shutters for space imaging. Mechanical Systems and Signal Processing, 2006, 20, 2305-2320.	4.4	1

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55	Thermomechanical design optimization and acceptance of the Wide-Angle Camera for the Rosetta mission. , 2003, 4854, 425.		1
56	High-performance shutter for space applications. , 2002, , .		4
57	Application of Peridynamic Theory to Nanocomposite Materials. Advanced Materials Research, 0, 1016, 44-48.	0.3	8
58	Mixed-Mode Crack Patterns in Ordinary State-Based Peridynamics. Key Engineering Materials, 0, 665, 53-56.	0.4	1