

# Pierluigi Fanelli

## List of Publications by Year in descending order

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56  
papers

721  
citations

567144

15  
h-index

610775

24  
g-index

56  
all docs

56  
docs citations

56  
times ranked

469  
citing authors

#	ARTICLE	IF	CITATIONS
1	Extreme flow simulations reveal skeletal adaptations of deep-sea sponges. <i>Nature</i> , 2021, 595, 537-541.	13.7	64
2	Structural analysis and optimization of anisogrid composite lattice cylindrical shells. <i>Composites Part B: Engineering</i> , 2018, 139, 203-215.	5.9	53
3	Experimental and numerical characterization of Friction Stir Spot Welded joints. <i>Engineering Fracture Mechanics</i> , 2012, 81, 17-25.	2.0	46
4	Design, analysis and optimization of anisogrid composite lattice conical shells. <i>Composites Part B: Engineering</i> , 2018, 150, 184-195.	5.9	45
5	Analysis of multi-bolt composite joints with a user-defined finite element for the evaluation of load distribution and secondary bending. <i>Composites Part B: Engineering</i> , 2021, 227, 109378.	5.9	39
6	Theoretical definition of a new custom finite element for structural modeling of composite bolted joints. <i>Composite Structures</i> , 2021, 258, 113199.	3.1	27
7	Bending analysis with Galerkin method of rectilinear orthotropic composite circular plates subject to transversal load. <i>Composites Part B: Engineering</i> , 2018, 140, 250-259.	5.9	25
8	Elastic analysis of rectilinear orthotropic composite circular plates subject to transversal and in-plane load conditions using Ritz method. <i>Composite Structures</i> , 2018, 199, 63-75.	3.1	23
9	Structural health monitoring of cylindrical bodies under impulsive hydrodynamic loading by distributed FBG strain measurements. <i>Measurement Science and Technology</i> , 2017, 28, 024006.	1.4	22
10	Modelling and characterization of structural behaviour of Al open-cell foams. <i>Materials and Design</i> , 2017, 114, 167-175.	3.3	21
11	Integrated design strategy for EU-DEMO first wall protection from plasma transients. <i>Fusion Engineering and Design</i> , 2022, 177, 113067.	1.0	21
12	FE analysis of single-bolt composite bolted joint by means of a simplified modeling technique. <i>Procedia Structural Integrity</i> , 2019, 24, 888-897.	0.3	19
13	Ritz method analysis of rectilinear orthotropic composite circular plates undergoing in-plane bending and torsional moments. <i>Mechanics of Advanced Materials and Structures</i> , 2021, 28, 963-979.	1.5	19
14	A novel composite bolted joint element: application to a single-bolted joint. <i>Procedia Structural Integrity</i> , 2018, 12, 281-295.	0.3	18
15	First-order shear deformation analysis of rectilinear orthotropic composite circular plates undergoing transversal loads. <i>Composites Part B: Engineering</i> , 2019, 174, 107015.	5.9	18
16	Fatigue reliability evaluation of riveted lap joints using a new rivet element and DFR. <i>International Journal of Fatigue</i> , 2017, 101, 430-438.	2.8	17
17	On the radial bending of shear-deformable composite circular plates with rectilinear orthotropy. <i>European Journal of Mechanics, A/Solids</i> , 2021, 86, 104157.	2.1	17
18	A new analytical model for the elastic-plastic behaviour of spot welded joints subjected to orthogonal load. <i>International Journal of Solids and Structures</i> , 2009, 46, 572-586.	1.3	16

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19	Influence of Joint Geometry on Micro and Macro Mechanical Properties of Friction Stir Spot Welded Joints. <i>Procedia Engineering</i> , 2014, 81, 2086-2091.	1.2	16
20	Multiscale analysis and mechanical characterization of open-cell foams by simplified FE modeling. <i>European Journal of Mechanics, A/Solids</i> , 2021, 89, 104291.	2.1	15
21	Structural analysis of transversally loaded quasi-isotropic rectilinear orthotropic composite circular plates with Galerkin method. <i>Procedia Structural Integrity</i> , 2018, 8, 368-378.	0.3	14
22	Limiters for DEMO wall protection: Initial design concepts & technology options. <i>Fusion Engineering and Design</i> , 2022, 174, 112988.	1.0	14
23	Parametric design study of a substrate material for a DEMO sacrificial limiter. <i>Fusion Engineering and Design</i> , 2020, 158, 111721.	1.0	13
24	A novel modeling approach for multi-passes butt-welded plates. <i>Journal of Thermal Stresses</i> , 2021, 44, 829-849.	1.1	13
25	Influence of the geometric model on the structural analysis of architectural heritage. <i>Journal of Cultural Heritage</i> , 2020, 43, 144-152.	1.5	11
26	Analysis of elastic-plastic behavior and plastic front evaluation in spot welded joints. <i>International Journal of Mechanical Sciences</i> , 2015, 90, 122-132.	3.6	9
27	Using MAXFEA code in combination with ANSYS APDL for the simulation of plasma disruption events on EU DEMO. <i>Fusion Engineering and Design</i> , 2021, 170, 112697.	1.0	9
28	A general formulation of an analytical model for the elastic-plastic behaviour of a spot weld finite element. <i>Mechanics Research Communications</i> , 2015, 69, 54-65.	1.0	8
29	Preliminary design and thermal analyses of the steerable mirror cooling channel of the DTT ECRH. <i>Fusion Engineering and Design</i> , 2020, 161, 111880.	1.0	7
30	Dynamic behaviour of DEMO vacuum vessel during plasma vertical displacement events. <i>Fusion Engineering and Design</i> , 2020, 159, 111876.	1.0	7
31	Preliminary investigation on W foams as protection strategy for advanced FW PFCs. <i>Fusion Engineering and Design</i> , 2019, 146, 1690-1693.	1.0	6
32	Tailored tungsten lattice structures for plasma-facing components in magnetic confinement fusion devices. <i>Materials Today</i> , 2020, 39, 146-147.	8.3	6
33	Projecting LBM performance on Exascale class Architectures: A tentative outlook. <i>Journal of Computational Science</i> , 2021, 55, 101447.	1.5	6
34	Live reconstruction of global loads on a powerboat using local strain FBG measurements. <i>Procedia Structural Integrity</i> , 2019, 24, 949-960.	0.3	5
35	Comparison between finite element and experimental evidences of innovative W lattice materials for sacrificial limiter applications. <i>Fusion Engineering and Design</i> , 2021, 169, 112493.	1.0	5
36	Inter-machine plasma perturbation studies in EU-DEMO-relevant scenarios: lessons learnt for prediction of EM forces during VDEs. <i>Nuclear Fusion</i> , 2022, 62, 076004.	1.6	5

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37	Assessment of the Performance of Different Cooling Configurations for the Launcher Mirrors of the ECRH System of the DTT Facility. IEEE Transactions on Plasma Science, 2022, 50, 4054-4059.	0.6	5
38	Live crack damage detection with local strain measurement on solid bodies subjected to hydrodynamic loading. Procedia Structural Integrity, 2018, 8, 539-551.	0.3	4
39	Thermal, electromagnetic and structural analysis of gas baffles for the TCV divertor upgrade. Fusion Engineering and Design, 2019, 146, 1543-1547.	1.0	4
40	Structural health monitoring algorithm application to a powerboat model impacting on water surface. Procedia Structural Integrity, 2019, 24, 926-938.	0.3	4
41	Effect of Strain Measurement Layout on Damage Detection and Localization in a Free Falling Compliant Cylinder Impacting a Water Surface. Fluids, 2021, 6, 58.	0.8	4
42	Analytical characterization of plastic flow in spot welded joints. Theoretical and Applied Fracture Mechanics, 2014, 74, 48-54.	2.1	3
43	Experimental characterization and numerical simulation of riveted lap-shear joints using Rivet Element. International Journal of Advanced Structural Engineering, 2018, 10, 37-47.	1.3	3
44	Numerical simulation of water entry problems using open source codes. AIP Conference Proceedings, 2018, , .	0.3	3
45	Analysis of Static Strength and Failure Mode of FSSW Joint in Aluminum Alloy. , 2014, , .		2
46	Influence of non-axisymmetric material anisotropy on FSSW static strength. AIP Conference Proceedings, 2015, , .	0.3	2
47	Analysis of Deformation in an Aluminium Hull Impacting Water Free Surface. Fluids, 2022, 7, 49.	0.8	2
48	Influence of sensors layout in damage monitoring of cylindrical bodies under impulsive hydrodynamic loading. AIP Conference Proceedings, 2018, , .	0.3	1
49	An original FE modelling of a longitudinal multi-passes seam welding. Procedia Structural Integrity, 2019, 24, 852-865.	0.3	1
50	Fluid-structure interaction problem of a deformable lamina solved with an original OpenFOAM code. Procedia Structural Integrity, 2019, 24, 939-948.	0.3	1
51	Influence of DEMO vacuum vessel shell thickness on its electromagnetic response. Fusion Engineering and Design, 2021, 173, 112828.	1.0	1
52	A semi-analytical method for the calculation of double-ellipsoidal heat source parameters in welding simulation. IOP Conference Series: Materials Science and Engineering, 2022, 1214, 012023.	0.3	1
53	Reply to: Models of flow through sponges must consider the sponge tissue. Nature, 2022, 603, E26-E28.	13.7	1
54	Modelling spot welded joints in elastic-plastic field. AIP Conference Proceedings, 2015, , .	0.3	0

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55	Cylinder-lamina system fluid-structure interaction problem solved with an original OpenFOAM code. Journal of Computational Science, 2021, 54, 101420.	1.5	0
56	Composite-to-metal multi-bolt joints: a simplified FE analysis method. IOP Conference Series: Materials Science and Engineering, 2022, 1214, 012021.	0.3	0