

Carmine Pappalettere

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

134 papers	1,770 citations	25 h-index	36 g-index
140 ext. papers	1,949 ext. citations	2.3 avg, IF	4.74 L-index

#	Paper	IF	Citations
134	Finite element method (FEM), mechanobiology and biomimetic scaffolds in bone tissue engineering. <i>International Journal of Biological Sciences</i> , 2011 , 7, 112-32	11.2	105
133	Preliminary investigation on distribution of residual stress generated by the selective laser melting process. <i>Journal of Strain Analysis for Engineering Design</i> , 2009 , 44, 93-104	1.3	82
132	Finite element analysis of a new customized composite post system for endodontically treated teeth. <i>Journal of Biomechanics</i> , 2005 , 38, 2375-89	2.9	63
131	An accurate validation of a computational model of a human lumbosacral segment. <i>Journal of Biomechanics</i> , 2010 , 43, 334-42	2.9	61
130	Metaheuristic Design Optimization of Skeletal Structures: A Review. <i>Computational Technology Reviews</i> , 2010 , 4, 1-32		56
129	Tissue differentiation and bone regeneration in an osteotomized mandible: a computational analysis of the latency period. <i>Medical and Biological Engineering and Computing</i> , 2008 , 46, 283-98	3.1	55
128	Numerical/experimental analysis of the stress field around miniscrews for orthodontic anchorage. <i>European Journal of Orthodontics</i> , 2009 , 31, 12-20	3.3	52
127	An experimental investigation of static and fatigue behaviour of sandwich composite panels joined by fasteners. <i>Composites Part B: Engineering</i> , 2001 , 32, 299-308	10	47
126	Nanoscale characterization of the biomechanical hardening of bovine zona pellucida. <i>Journal of the Royal Society Interface</i> , 2012 , 9, 2871-82	4.1	44
125	Experimental and numerical study of static and fatigue properties of titanium alloy welded joints. <i>Mechanics of Materials</i> , 2009 , 41, 231-243	3.3	42
124	The influence of expansion rates on mandibular distraction osteogenesis: a computational analysis. <i>Annals of Biomedical Engineering</i> , 2007 , 35, 1940-60	4.7	40
123	Comparison of the numerical efficiency of different sequential linear programming based algorithms for structural optimisation problems. <i>Computers and Structures</i> , 2000 , 76, 713-728	4.5	40
122	Mechanical characterization of hyperelastic materials with fringe projection and optimization techniques. <i>Optics and Lasers in Engineering</i> , 2006 , 44, 423-442	4.6	34
121	Improved global/local simulated annealing formulation for solving non-smooth engineering optimization problems. <i>International Journal of Solids and Structures</i> , 2005 , 42, 203-237	3.1	34
120	Move limits definition in structural optimization with sequential linear programming. Part II: Numerical examples. <i>Computers and Structures</i> , 2003 , 81, 215-238	4.5	31
119	Move limits definition in structural optimization with sequential linear programming. Part I: Optimization algorithm. <i>Computers and Structures</i> , 2003 , 81, 197-213	4.5	30
118	A hybrid characterization framework to determine the visco-hyperelastic properties of a porcine zona pellucida. <i>Interface Focus</i> , 2014 , 4, 20130066	3.9	29

117	A general framework for identification of hyper-elastic membranes with moiré techniques and multi-point simulated annealing. <i>International Journal of Solids and Structures</i> , 2008 , 45, 6074-6099	3.1	29
116	Whole-depth change in bovine zona pellucida biomechanics after fertilization: how relevant in hindering polyspermy?. <i>PLoS ONE</i> , 2012 , 7, e45696	3.7	28
115	Mechanical behavior of an osteotomized mandible with distraction orthodontic devices. <i>Journal of Biomechanics</i> , 2006 , 39, 2907-18	2.9	28
114	Thermographic investigation of sandwich structure made of composite material. <i>NDT and E International</i> , 2001 , 34, 515-520	4.1	28
113	Analysis of crack propagation in stainless steel by comparing acoustic emissions and infrared thermography data. <i>Engineering Failure Analysis</i> , 2016 , 69, 35-42	3.2	27
112	Improved sequential linear programming formulation for structural weight minimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004 , 193, 3493-3521	5.7	27
111	Fatigue resistance of titanium laser and hybrid welded joints. <i>Materials & Design</i> , 2011 , 32, 3127-3135		26
110	Comparison of different orthodontic devices for mandibular symphyseal distraction osteogenesis: a finite element study. <i>American Journal of Orthodontics and Dentofacial Orthopedics</i> , 2008 , 134, 260-9	2.1	26
109	Analysis of the effects of process parameters in residual stress measurements on Titanium plates by HDM/ESPI. <i>Measurement: Journal of the International Measurement Confederation</i> , 2014 , 48, 220-227	4.6	24
108	A mechano-regulation model of fracture repair in vertebral bodies. <i>Journal of Orthopaedic Research</i> , 2011 , 29, 433-43	3.8	24
107	Discussion on local approaches for the fatigue design of welded joints. <i>International Journal of Fatigue</i> , 2009 , 31, 41-49	5	24
106	A new hybrid technique for in-plane characterization of orthotropic materials. <i>Experimental Mechanics</i> , 2004 , 44, 584-592	2.6	23
105	The influence of stitching and unconventional fibres orientation on the tensile properties of CFRP laminates. <i>Composites Part B: Engineering</i> , 2017 , 110, 248-254	10	22
104	Effect of the residual stress on soft sample nanoindentation. <i>Applied Physics Letters</i> , 2013 , 102, 133704	3.4	21
103	Effect of AFM probe geometry on visco-hyperelastic characterization of soft materials. <i>Nanotechnology</i> , 2015 , 26, 325701	3.4	20
102	Finite element analysis of cancellous bone failure in the vertebral body of healthy and osteoporotic subjects. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2008 , 222, 1023-36	1.7	20
101	A comprehensive ESPI based system for combined measurement of shape and deformation of electronic components. <i>Optics and Lasers in Engineering</i> , 2004 , 42, 543-562	4.6	19
100	A time-of-scan laser triangulation technique for distance measurements. <i>Optics and Lasers in Engineering</i> , 2003 , 39, 247-254	4.6	19

99	Effect of different irrigating solutions and endodontic sealers on bond strength of the dentin-post interface with and without defects. <i>International Journal of Medical Sciences</i> , 2012 , 9, 642-54	3.7	18
98	A Comprehensive Numerical Stress-Strain Analysis of Laser Beam Butt-Welded Titanium Compared with Austenitic Steel Joints. <i>Journal of Strain Analysis for Engineering Design</i> , 2010 , 45, 535-554	1.3	17
97	Whole 3D shape reconstruction of vascular segments under pressure via fringe projection techniques. <i>Optics and Lasers in Engineering</i> , 2006 , 44, 1311-1323	4.6	17
96	Remarks on residual stress measurement by hole-drilling and electronic speckle pattern interferometry. <i>Scientific World Journal, The</i> , 2014 , 2014, 487149	2.2	15
95	Evaluation of fatigue strength of welded structures by local strain measurements. <i>Experimental Mechanics</i> , 1985 , 25, 129-139	2.6	15
94	Mechanical Characterization of SLM Specimens with Speckle Interferometry and Numerical Optimization. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 837-843	0.3	15
93	A Constitutive Model for the Annulus of Human Intervertebral Disc: Implications for Developing a Degeneration Model and Its Influence on Lumbar Spine Functioning. <i>Journal of Applied Mathematics</i> , 2014 , 2014, 1-15	1.1	14
92	Structural Response of Polyethylene Foam-Based Sandwich Panels Subjected to Edgewise Compression. <i>Materials</i> , 2013 , 6, 4545-4564	3.5	14
91	Mechanical Characterization of Biological Membranes with Moiré Techniques and Multi-Point Simulated Annealing. <i>Experimental Mechanics</i> , 2008 , 48, 465-478	2.6	14
90	Drilling Speed Effects on Accuracy of HD Residual Stress Measurements. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014 , 119-125	0.3	14
89	A model of tissue differentiation and bone remodelling in fractured vertebrae treated with minimally invasive percutaneous fixation. <i>Medical and Biological Engineering and Computing</i> , 2012 , 50, 947-59	3.1	13
88	Acoustic Emission Analysis of Aluminum Specimen Subjected to Laser Annealing. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014 , 309-315	0.3	12
87	Hybrid Characterization of Laminated Wood with ESPI and Optimization Methods. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2013 , 75-83	0.3	12
86	Experimental Analysis of Thermo-mechanical Behaviour of Electronic Components with Speckle Interferometry. <i>Strain</i> , 2013 , 49, 497-506	1.7	11
85	Analysis of the effects of strain measurement errors on residual stresses measured by incremental hole-drilling method. <i>Journal of Strain Analysis for Engineering Design</i> , 2013 , 48, 313-320	1.3	11
84	A local strain method for the evaluation of welded joints fatigue resistance: the case of thin main-plates thickness. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2005 , 28, 759-767	3	11
83	Hybrid thermography and acoustic emission testing of fatigue crack propagation in Aluminum Samples. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015 , 247-252	0.3	11
82	Quantitative Analysis of Defects at the Dentin-Post Space in Endodontically Treated Teeth. <i>Materials</i> , 2015 , 8, 3268-3283	3.5	10

81	Analysis of the performance of different orthodontic devices for mandibular symphyseal distraction osteogenesis. <i>European Journal of Orthodontics</i> , 2011 , 33, 113-20	3.3	10
80	EFFECTS OF AGING ON THE LATENCY PERIOD IN MANDIBULAR DISTRACTION OSTEOGENESIS: A COMPUTATIONAL MECHANOBIOLOGICAL ANALYSIS. <i>Journal of Mechanics in Medicine and Biology</i> , 2008 , 08, 203-225	0.7	10
79	Fatigue Damage Monitoring by Means of Acoustic Emission and Thermography in Ti Grade 5 Specimens. <i>Procedia Engineering</i> , 2015 , 114, 487-492		9
78	Bonding Characteristics of Single- and Joggled-Lap CFRP Specimens: Mechanical and Acoustic Investigations. <i>Applied Sciences (Switzerland)</i> , 2020 , 10, 1782	2.6	8
77	A comparison of shear bond strength of ceramic and resin denture teeth on different acrylic resin bases. <i>Open Dentistry Journal</i> , 2014 , 8, 241-50	0.8	8
76	Friction forces during sliding of various brackets for malaligned teeth: an in vitro study. <i>Scientific World Journal, The</i> , 2013 , 2013, 871423	2.2	8
75	An efficient Sequential Linear Programming algorithm for engineering optimization. <i>Journal of Engineering Design</i> , 2005 , 16, 353-371	1.8	8
74	Considerations on the choice of experimental parameters in residual stress measurements by hole-drilling and ESPI. <i>Frattura Ed Integrita Strutturale</i> , 2014 , 8, 211-219	0.9	7
73	Detection of Damage in CFRP by Wavelet Packet Transform and Empirical Mode Decomposition: an Hybrid Approach. <i>Applied Composite Materials</i> , 2020 , 27, 641-655	2	7
72	Impact response of polyethylene sandwich panel obtained by rotational moulding. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2014 , 37, 1377-1385	3	6
71	A numerical code for lay-out optimization of skeletal structures with sequential linear programming. <i>Engineering With Computers</i> , 2003 , 19, 101-129	4.5	6
70	Calibration of Barkhausen Noise for Residual Stress Measurement. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2013 , 255-266	0.3	6
69	A probabilistic fatigue assessment diagram to get a guaranteed lifetime with a low probability of failure. <i>Engineering Failure Analysis</i> , 2017 , 79, 330-341	3.2	5
68	A novel moiré-based optical scanning head for high-precision contouring. <i>International Journal of Advanced Manufacturing Technology</i> , 2015 , 80, 47-63	3.2	5
67	Acoustic sources from damage propagation in Ti grade 5. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016 , 91, 73-76	4.6	5
66	Experimental Study of the Pressures and Points of Application of the Forces Exerted between Aligner and Tooth. <i>Nanomaterials</i> , 2019 , 9,	5.4	5
65	Stress concentration factors in square and circular cross-sectioned bars with axial slots. <i>Journal of Strain Analysis for Engineering Design</i> , 2003 , 38, 247-258	1.3	5
64	Study of cellular response induced by low intensity ultrasound frequency sweep pattern on myelomonocytic lymphoma U937 cells. <i>Journal of Ultrasound</i> , 2016 , 19, 167-74	3.4	5

63	Considerations on Acoustic Emissions in Ti Grade 5 During Fatigue Test. <i>Procedia Engineering</i> , 2015 , 109, 320-326		4
62	Influence of the clamps configuration on residual stresses field in friction stir welding process. <i>Journal of Strain Analysis for Engineering Design</i> , 2015 , 50, 232-242	1.3	4
61	The biomechanics of the umbilical cord Wharton Jelly: Roles in hemodynamic proficiency and resistance to compression. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019 , 100, 103374-1	4.1	4
60	Residual stress measurements by ESPI-HDM in titanium grade 5: comparative measurements with different hole diameters. <i>Ciência & Tecnologia Dos Materiais</i> , 2015 , 27, 79-83		4
59	ACCURACY OF FINITE ELEMENT PREDICTIONS ON BONE/IMPLANT INTERFACE CONTACT PRESSURES FOR MODELS RECONSTRUCTED FROM CT SCANS. <i>Journal of Mechanics in Medicine and Biology</i> , 2008 , 08, 161-182	0.7	4
58	Axial stereo-photogrammetry for 360° measurement on tubular samples. <i>Optics and Lasers in Engineering</i> , 2007 , 45, 637-650	4.6	4
57	Measurements of strain during vapour deposition of thin films and multilayers. <i>Thin Solid Films</i> , 2003 , 433, 144-148	2.2	4
56	Local strain for fatigue strength of welded structures. <i>Journal of Strain Analysis for Engineering Design</i> , 2001 , 36, 605-610	1.3	4
55	Stress field near sharp notches. <i>Journal of Materials Processing Technology</i> , 1992 , 32, 155-160	5.3	4
54	Finite element modelling of bone tissue scaffolds 2014 , 485-511		3
53	Measurements of Deflection and Residual Stress in Thin Films Utilizing Coherent Light Reflection/Projection Moiré Interferometry. <i>Experimental Mechanics</i> , 2013 , 53, 977-987	2.6	3
52	Experimental/Numerical Investigation on the Biomimetic Recovery of Natural Tooth Structural Response after Porcelain Veneer Restoration. <i>Strain</i> , 2012 , 48, 30-48	1.7	3
51	Finite element calculation of contour integral parameters for cracked P91 pipe weld. <i>Materials Research Innovations</i> , 2013 , 17, 300-305	1.9	3
50	Mechanobiology of Fracture Healing: Basic Principles and Applications in Orthodontics and Orthopaedics 2011 ,		3
49	Investigation on Fracture Behaviour of Turbine Blades Under Self-Exciting Modes. <i>Strain</i> , 2011 , 47, e113-e129	4.1	3
48	EVALUATION AND MINIMIZATION OF GEOMETRIC RECONSTRUCTION ERRORS IN FEM MODELS GENERATED FROM CT-SCAN IMAGES. <i>Journal of Mechanics in Medicine and Biology</i> , 2009 , 09, 301-327	0.7	3
47	Experimental and Numerical Characterization of the Impact Response of Polyethylene Sandwich Panel: A Preliminary Study. <i>Applied Mechanics and Materials</i> , 2011 , 70, 195-200	0.3	3
46	Full-Field Strain Measurement On Titanium Welds And Local Elasto-Plastic Identification With The Virtual Fields Method 2011 ,		3

45	Measurement of deflections experienced by electronic chips during soldering. <i>Journal of Strain Analysis for Engineering Design</i> , 2006 , 41, 597-608	1.3	3
44	Design optimization of large-scale structures with sequential linear programming. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2002 , 216, 799-811	1.3	3
43	Design of a Double-Illumination ESPI System for the Measurement of Very Slow Motions. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015 , 97-102	0.3	3
42	Effects of Strain Error on Residual Stresses Calculated by HDM. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2013 , 395-402	0.3	3
41	Application of Contouring to Dental Reconstruction. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2013 , 183-191	0.3	3
40	Design of a fiber optics fringe projector for 3D reconstruction of dental elements 2014 ,		2
39	ESPI Analysis of Thermo-Mechanical Behavior of Electronic Components. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2017 , 321-326	0.3	2
38	Feasibility of Local Stress Relaxation by Laser Annealing and X-ray Measurement. <i>Strain</i> , 2013 , 49, n/a-n/a	1.7	2
37	Experimental Analysis of Foam Sandwich Panels with Projection Moiré. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 249-256	0.3	2
36	Residual Stress on Ti6Al4V Hybrid and Laser Welded Joints. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 111-118	0.3	2
35	Open hole compressive strength of composite laminates and sandwich panels: comparison between Budiansky-Bleck-Boutis model and experiments. <i>Plastics, Rubber and Composites</i> , 2012 , 41, 199-208	1.5	2
34	A novel design of ventricular assist device: an in vitro feasibility study. <i>Minimally Invasive Therapy and Allied Technologies</i> , 2012 , 21, 377-87	2.1	2
33	An application of the differential thermographic technique for welded joints fatigue evaluation 2006 ,		2
32	Identification of mechanical properties of bovine bones by combining PS-ESPI and global optimization 2006 , 6341, 42		2
31	Structural behaviour of endodontically treated teeth under thermomechanical loading. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2006 , 220, 909-28	1.7	2
30	Thin stainless steel sandwich structural panels all welded by laser technology: residual stress measurements by the hole-drilling strain-gage method 2001 , 4184, 579		2
29	Sharp V-Notches Subjected to Axial and Shear Stresses 1990 , 711-719		2
28	Characterization and Prediction of Cracks in Coated Materials: Direction and Length of Crack Propagation in Bimaterials. <i>International Scholarly Research Notices</i> , 2015 , 2015, 594147	0	2

27	Temperature Field in FSW Process: Experimental Measurement and Numerical Simulation. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015 , 177-186	0.3	2
26	Overview of the Effects of Process Parameters on the Accuracy in Residual Stress Measurements by Using HD and ESPI. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 113-118	0.3	2
25	A Computational Approach to the Design of Scaffolds for Bone Tissue Engineering. <i>Lecture Notes in Bioengineering</i> , 2018 , 111-117	0.8	2
24	An Optical System to Monitor the Displacement Field of Glass-fibre Posts Subjected to Thermal Loading. <i>Open Dentistry Journal</i> , 2016 , 10, 610-618	0.8	2
23	A Probabilistic Fatigue Assessment Diagram To Get A Guaranteed Lifetime With A Low Probability Of Failure. <i>Procedia Structural Integrity</i> , 2016 , 2, 2447-2455	1	2
22	Residual Stress on Titanium Alloy Welded Joints 2007 , 947-948		2
21	A Deeper Look Into Immature Porcine Zona Pellucida Visco-hyperelasticity. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 85-89	0.3	1
20	Discussion on hybrid approach to determination of cell elastic properties. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 119-124	0.3	1
19	2011 ,		1
18	Acoustic Emission Analysis in Titanium Grade 5 Samples During Fatigue Test. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 87-91	0.3	1
17	A Short Survey on Residual Stress Measurements by HDM and ESPI. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2018 , 105-110	0.3	1
16	Residual Stress on Aisi 300 Sintered Materials. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 201-208	0.3	1
15	Measurement of Residual Stresses in Diamond Coated Substrates Utilizing Coherent Light Projection Moiré Interferometry. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 209-217	0.3	1
14	Study on the Visco-Hyperelastic Behavior of the Zona Pellucida. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015 , 53-62	0.3	0
13	EXPERIMENTAL COMPARISON OF MCF7 AND MCF10A RESPONSE TO LOW INTENSITY ULTRASOUND. <i>Journal of Mechanics in Medicine and Biology</i> , 2019 , 19, 1950057	0.7	0
12	Numerical Prediction of Temperature and Residual Stress Fields in LFSW. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 263-273	0.3	
11	TIME-AVERAGE HOLOGRAPHY TO ANALYZE DYNAMIC BEHAVIOR OF SKIN TISSUES UNDER DIFFERENT CONDITIONS. <i>Journal of Mechanics in Medicine and Biology</i> , 2017 , 17, 1750020	0.7	
10	Viscohyperelastic Calibration in Mechanical Characterization of Soft Matter. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2017 , 33-37	0.3	

9	Truss Weight Minimization Using Hybrid Harmony Search and Big BangBig Crunch Algorithms 2013 , 207-240	
8	Mechanical Characterisation of a New Biodegradable Film. <i>Strain</i> , 2008 , 46, 215-226	1.7
7	Evaluation of Fatigue Strength of Welded Joints by Local Strain Measurements at Weld Toe. <i>Key Engineering Materials</i> , 2007 , 348-349, 701-704	0.4
6	Evaluating Bonding Characteristics of Joggled Lap CFRP Using Acoustic Emission Techniques. <i>Structural Integrity</i> , 2020 , 26-31	0.2
5	Fatigue Strength of Welded Joints by the Local Strain Method 2001 , 307-316	
4	A Preliminary Investigation on the Mechanical Behavior of Umbilical Cord With Moiré Techniques. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015 , 47-52	0.3
3	Recent Developments in the Contouring of Surfaces. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2013 , 155-163	0.3
2	A Mechano-regulation Model to Optimize Design of Minimally Invasive Percutaneous Fixation Devices for Treatment of Fractured Vertebrae. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014 , 93-98	0.3
1	Evaluation of Residual Stress with Optical Methods. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2019 , 193-201	0.3