Carmine Pappalettere

List of Publications by Year in Descending Order

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	Bonding Characteristics of Single- and Joggled-Lap CFRP Specimens: Mechanical and Acoustic Investigations. *Applied Sciences (Switzerland)*, **2020**, 10, 1782	2.6	8
133	Evaluating Bonding Characteristics of Joggled Lap CFRP Using Acoustic Emission Techniques. *Structural Integrity*, **2020**, 26-31	0.2	
132	Detection of Damage in CFRP by Wavelet Packet Transform and Empirical Mode Decomposition: an Hybrid Approach. *Applied Composite Materials*, **2020**, 27, 641-655	2	7
131	The biomechanics of the umbilical cord Wharton Jelly: Roles in hemodynamic proficiency and resistance to compression. *Journal of the Mechanical Behavior of Biomedical Materials*, **2019**, 100, 103377	4.1	4
130	Experimental Study of the Pressures and Points of Application of the Forces Exerted between Aligner and Tooth. *Nanomaterials*, **2019**, 9,	5.4	5
129	EXPERIMENTAL COMPARISON OF MCF7 AND MCF10A RESPONSE TO LOW INTENSITY ULTRASOUND. *Journal of Mechanics in Medicine and Biology*, **2019**, 19, 1950057	0.7	0
128	Evaluation of Residual Stress with Optical Methods. *Conference Proceedings of the Society for Experimental Mechanics*, **2019**, 193-201	0.3	
127	A Computational Approach to the Design of Scaffolds for Bone Tissue Engineering. *Lecture Notes in Bioengineering*, **2018**, 111-117	0.8	2
126	A Short Survey on Residual Stress Measurements by HDM and ESPI. *Conference Proceedings of the Society for Experimental Mechanics*, **2018**, 105-110	0.3	1
125	A probabilistic fatigue assessment diagram to get a guaranteed lifetime with a low probability of failure. *Engineering Failure Analysis*, **2017**, 79, 330-341	3.2	5
124	TIME-AVERAGE HOLOGRAPHY TO ANALYZE DYNAMIC BEHAVIOR OF SKIN TISSUES UNDER DIFFERENT CONDITIONS. *Journal of Mechanics in Medicine and Biology*, **2017**, 17, 1750020	0.7	
123	Viscohyperelastic Calibration in Mechanical Characterization of Soft Matter. *Conference Proceedings of the Society for Experimental Mechanics*, **2017**, 33-37	0.3	
122	ESPI Analysis of Thermo-Mechanical Behavior of Electronic Components. *Conference Proceedings of the Society for Experimental Mechanics*, **2017**, 321-326	0.3	2
121	The influence of stitching and unconventional fibres orientation on the tensile properties of CFRP laminates. *Composites Part B: Engineering*, **2017**, 110, 248-254	10	22
120	Acoustic sources from damage propagation in Ti grade 5. *Measurement: Journal of the International Measurement Confederation*, **2016**, 91, 73-76	4.6	5
119	Analysis of crack propagation in stainless steel by comparing acoustic emissions and infrared thermography data. *Engineering Failure Analysis*, **2016**, 69, 35-42	3.2	27
118	A Deeper Look Into Immature Porcine Zona Pellucida Visco-hyperelasticity. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 85-89	0.3	1

117	Numerical Prediction of Temperature and Residual Stress Fields in LFSW. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 263-273	0.3	
116	Overview of the Effects of Process Parameters on the Accuracy in Residual Stress Measurements by Using HD and ESPI. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 113-118	0.3	2
115	Acoustic Emission Analysis in Titanium Grade 5 Samples During Fatigue Test. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 87-91	0.3	1
114	An Optical System to Monitor the Displacement Field of Glass-fibre Posts Subjected to Thermal Loading. *Open Dentistry Journal*, **2016**, 10, 610-618	0.8	2
113	Study of cellular response induced by low intensity ultrasound frequency sweep pattern on myelomonocytic lymphoma U937 cells. *Journal of Ultrasound*, **2016**, 19, 167-74	3.4	5
112	A Probabilistic Fatigue Assessment Diagram To Get A Guaranteed Lifetime With A Low Probability Of Failure. *Procedia Structural Integrity*, **2016**, 2, 2447-2455	1	2
111	Effect of AFM probe geometry on visco-hyperelastic characterization of soft materials. *Nanotechnology*, **2015**, 26, 325701	3.4	20
110	Considerations on Acoustic Emissions in Ti Grade 5 During Fatigue Test. *Procedia Engineering*, **2015**, 109, 320-326		4
109	A novel moir□based optical scanning head for high-precision contouring. *International Journal of Advanced Manufacturing Technology*, **2015**, 80, 47-63	3.2	5
108	Fatigue Damage Monitoring by Means of Acoustic Emission and Thermography in Ti Grade 5 Specimens. *Procedia Engineering*, **2015**, 114, 487-492		9
107	Influence of the clamps configuration on residual stresses field in friction stir welding process. *Journal of Strain Analysis for Engineering Design*, **2015**, 50, 232-242	1.3	4
106	Residual stress measurements by ESPI-HDM in titanium grade 5: comparative measurements with different hole diameters. *Ciência & Tecnologia Dos Materiais*, **2015**, 27, 79-83		4
105	Quantitative Analysis of Defects at the Dentin-Post Space in Endodontically Treated Teeth. *Materials*, **2015**, 8, 3268-3283	3.5	10
104	Characterization and Prediction of Cracks in Coated Materials: Direction and Length of Crack Propagation in Bimaterials. *International Scholarly Research Notices*, **2015**, 2015, 594147	0	2
103	Hybrid thermography and acoustic emission testing of fatigue crack propagation in Aluminum Samples. *Conference Proceedings of the Society for Experimental Mechanics*, **2015**, 247-252	0.3	11
102	Design of a Double-Illumination ESPI System for the Measurement of Very Slow Motions. *Conference Proceedings of the Society for Experimental Mechanics*, **2015**, 97-102	0.3	3
101	Temperature Field in FSW Process: Experimental Measurement and Numerical Simulation. *Conference Proceedings of the Society for Experimental Mechanics*, **2015**, 177-186	0.3	2
100	A Preliminary Investigation on the Mechanical Behavior of Umbilical Cord With Moir□Techniques. *Conference Proceedings of the Society for Experimental Mechanics*, **2015**, 47-52	0.3	

99	Study on the Visco-Hyperelastic Behavior of the Zona Pellucida. *Conference Proceedings of the Society for Experimental Mechanics*, **2015**, 53-62	0.3	0
98	Analysis of the effects of process parameters in residual stress measurements on Titanium plates by HDM/ESPI. *Measurement: Journal of the International Measurement Confederation*, **2014**, 48, 220-227	4.6	24
97	Design of a fiber optics fringe projector for 3D reconstruction of dental elements **2014**,		2
96	Finite element modelling of bone tissue scaffolds **2014**, 485-511		3
95	Remarks on residual stress measurement by hole-drilling and electronic speckle pattern interferometry. *Scientific World Journal, The*, **2014**, 2014, 487149	2.2	15
94	A comparison of shear bond strength of ceramic and resin denture teeth on different acrylic resin bases. *Open Dentistry Journal*, **2014**, 8, 241-50	0.8	8
93	A Constitutive Model for the Annulus of Human Intervertebral Disc: Implications for Developing a Degeneration Model and Its Influence on Lumbar Spine Functioning. *Journal of Applied Mathematics* , **2014**, 2014, 1-15	1.1	14
92	A hybrid characterization framework to determine the visco-hyperelastic properties of a porcine zona pellucida. *Interface Focus*, **2014**, 4, 20130066	3.9	29
91	Considerations on the choice of experimental parameters in residual stress measurements by hole-drilling and ESPI. *Frattura Ed Integrita Strutturale*, **2014**, 8, 211-219	0.9	7
90	Impact response of polyethylene sandwich panel obtained by rotational moulding. *Fatigue and Fracture of Engineering Materials and Structures*, **2014**, 37, 1377-1385	3	6
89	Drilling Speed Effects on Accuracy of HD Residual Stress Measurements. *Conference Proceedings of the Society for Experimental Mechanics*, **2014**, 119-125	0.3	14
88	Acoustic Emission Analysis of Aluminum Specimen Subjected to Laser Annealing. *Conference Proceedings of the Society for Experimental Mechanics*, **2014**, 309-315	0.3	12
87	A Mechano-regulation Model to Optimize Design of Minimally Invasive Percutaneous Fixation Devices for Treatment of Fractured Vertebrae. *Conference Proceedings of the Society for Experimental Mechanics*, **2014**, 93-98	0.3	
86	Measurements of Deflection and Residual Stress in Thin Films Utilizing Coherent Light Reflection/Projection Moir□Interferometry. *Experimental Mechanics*, **2013**, 53, 977-987	2.6	3
85	Experimental Analysis of Thermo-mechanical Behaviour of Electronic Components with Speckle Interferometry. *Strain*, **2013**, 49, 497-506	1.7	11
84	Analysis of the effects of strain measurement errors on residual stresses measured by incremental hole-drilling method. *Journal of Strain Analysis for Engineering Design*, **2013**, 48, 313-320	1.3	11
83	Finite element calculation of contour integral parameters for cracked P91 pipe weld. *Materials Research Innovations*, **2013**, 17, 300-305	1.9	3
82	Structural Response of Polyethylene Foam-Based Sandwich Panels Subjected to Edgewise Compression. *Materials*, **2013**, 6, 4545-4564	3.5	14

81	Feasibility of Local Stress Relaxation by Laser Annealing and X-ray Measurement. *Strain*, **2013**, 49, n/a-n/a	1.7	2
80	Effect of the residual stress on soft sample nanoindentation. *Applied Physics Letters*, **2013**, 102, 133704	3.4	21
79	Friction forces during sliding of various brackets for malaligned teeth: an in vitro study. *Scientific World Journal, The*, **2013**, 2013, 871423	2.2	8
78	Truss Weight Minimization Using Hybrid Harmony Search and Big Bang–Big Crunch Algorithms **2013**, 207-240		
77	Recent Developments in the Contouring of Surfaces. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 155-163	0.3	
76	Calibration of Barkhausen Noise for Residual Stress Measurement. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 255-266	0.3	6
75	Effects of Strain Error on Residual Stresses Calculated by HDM. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 395-402	0.3	3
74	Application of Contouring to Dental Reconstruction. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 183-191	0.3	3
73	Hybrid Characterization of Laminated Wood with ESPI and Optimization Methods. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 75-83	0.3	12
72	A model of tissue differentiation and bone remodelling in fractured vertebrae treated with minimally invasive percutaneous fixation. *Medical and Biological Engineering and Computing*, **2012**, 50, 947-59	3.1	13
71	Whole-depth change in bovine zona pellucida biomechanics after fertilization: how relevant in hindering polyspermy?. *PLoS ONE*, **2012**, 7, e45696	3.7	28
70	Effect of different irrigating solutions and endodontic sealers on bond strength of the dentin-post interface with and without defects. *International Journal of Medical Sciences*, **2012**, 9, 642-54	3.7	18
69	Experimental–Numerical Investigation on the Biomimetic Recovery of Natural Tooth Structural Response after Porcelain Veneer Restoration. *Strain*, **2012**, 48, 30-48	1.7	3
68	Nanoscale characterization of the biomechanical hardening of bovine zona pellucida. *Journal of the Royal Society Interface*, **2012**, 9, 2871-82	4.1	44
67	Open hole compressive strength of composite laminates and sandwich panels: comparison between Budiansky–Fleck–Soutis model and experiments. *Plastics, Rubber and Composites*, **2012**, 41, 199-208	1.5	2
66	A novel design of ventricular assist device: an in vitro feasibility study. *Minimally Invasive Therapy and Allied Technologies*, **2012**, 21, 377-87	2.1	2
65	Discussion on hybrid approach to determination of cell elastic properties. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 119-124	0.3	1
64	Experimental Analysis of Foam Sandwich Panels with Projection Moir *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 249-256	0.3	2

63	Mechanobiology of Fracture Healing: Basic Principles and Applications in Orthodontics and Orthopaedics **2011**,		3
62	Finite element method (FEM), mechanobiology and biomimetic scaffolds in bone tissue engineering. *International Journal of Biological Sciences*, **2011**, 7, 112-32	11.2	105
61	Investigation on Fracture Behaviour of Turbine Blades Under Self-Exciting Modes. *Strain*, **2011**, 47, e113-e129	1.7	3
60	A mechano-regulation model of fracture repair in vertebral bodies. *Journal of Orthopaedic Research* , **2011**, 29, 433-43	3.8	24
59	**2011**,		1
58	Fatigue resistance of titanium laser and hybrid welded joints. *Materials & Design*, **2011**, 32, 3127-3135		26
57	Analysis of the performance of different orthodontic devices for mandibular symphyseal distraction osteogenesis. *European Journal of Orthodontics*, **2011**, 33, 113-20	3.3	10
56	Experimental and Numerical Characterization of the Impact Response of Polyethylene Sandwich Panel: A Preliminary Study. *Applied Mechanics and Materials*, **2011**, 70, 195-200	0.3	3
55	Residual Stress on Ti6Al4V Hybrid and Laser Welded Joints. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 111-118	0.3	2
54	Full-Field Strain Measurement On Titanium Welds And Local Elasto-Plastic Identification With The Virtual Fields Method **2011**,		3
53	Mechanical Characterization of SLM Specimens with Speckle Interferometry and Numerical Optimization. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 837-843	0.3	15
52	Residual Stress on Aisi 300 Sintered Materials. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 201-208	0.3	1
51	Measurement of Residual Stresses in Diamond Coated Substrates Utilizing Coherent Light Projection Moir Interferometry. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 209-217	0.3	1
50	A Comprehensive Numerical Stress Strain Analysis of Laser Beam Butt-Welded Titanium Compared with Austenitic Steel Joints. *Journal of Strain Analysis for Engineering Design*, **2010**, 45, 535-554	1.3	17
49	An accurate validation of a computational model of a human lumbosacral segment. *Journal of Biomechanics*, **2010**, 43, 334-42	2.9	61
48	Metaheuristic Design Optimization of Skeletal Structures: A Review. *Computational Technology Reviews*, **2010**, 4, 1-32		56
47	EVALUATION AND MINIMIZATION OF GEOMETRIC RECONSTRUCTION ERRORS IN FEM MODELS GENERATED FROM CT-SCAN IMAGES. *Journal of Mechanics in Medicine and Biology*, **2009**, 09, 301-327	0.7	3
46	Numerical/experimental analysis of the stress field around miniscrews for orthodontic anchorage. *European Journal of Orthodontics*, **2009**, 31, 12-20	3.3	52

45	Discussion on local approaches for the fatigue design of welded joints. *International Journal of Fatigue*, **2009**, 31, 41-49	5	24
44	Experimental and numerical study of static and fatigue properties of titanium alloy welded joints. *Mechanics of Materials*, **2009**, 41, 231-243	3.3	42
43	Preliminary investigation on distribution of residual stress generated by the selective laser melting process. *Journal of Strain Analysis for Engineering Design*, **2009**, 44, 93-104	1.3	82
42	Mechanical Characterisation of a New Biodegradable Film. *Strain*, **2008**, 46, 215-226	1.7	
41	Finite element analysis of cancellous bone failure in the vertebral body of healthy and osteoporotic subjects. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2008**, 222, 1023-36	1.7	20
40	ACCURACY OF FINITE ELEMENT PREDICTIONS ON BONE/IMPLANT INTERFACE CONTACT PRESSURES FOR MODELS RECONSTRUCTED FROM CT SCANS. *Journal of Mechanics in Medicine and Biology*, **2008**, 08, 161-182	0.7	4
39	EFFECTS OF AGING ON THE LATENCY PERIOD IN MANDIBULAR DISTRACTION OSTEOGENESIS: A COMPUTATIONAL MECHANOBIOLOGICAL ANALYSIS. *Journal of Mechanics in Medicine and Biology*, **2008**, 08, 203-225	0.7	10
38	Mechanical Characterization of Biological Membranes with Moir Techniques and Multi-Point Simulated Annealing. *Experimental Mechanics*, **2008**, 48, 465-478	2.6	14
37	Tissue differentiation and bone regeneration in an osteotomized mandible: a computational analysis of the latency period. *Medical and Biological Engineering and Computing*, **2008**, 46, 283-98	3.1	55
36	A general framework for identification of hyper-elastic membranes with moir techniques and multi-point simulated annealing. *International Journal of Solids and Structures*, **2008**, 45, 6074-6099	3.1	29
35	Comparison of different orthodontic devices for mandibular symphyseal distraction osteogenesis: a finite element study. *American Journal of Orthodontics and Dentofacial Orthopedics*, **2008**, 134, 260-9	2.1	26
34	Axial stereo-photogrammetry for 360° measurement on tubular samples. *Optics and Lasers in Engineering*, **2007**, 45, 637-650	4.6	4
33	The influence of expansion rates on mandibular distraction osteogenesis: a computational analysis. *Annals of Biomedical Engineering*, **2007**, 35, 1940-60	4.7	40
32	Evaluation of Fatigue Strength of Welded Joints by Local Strain Measurements at Weld Toe. *Key Engineering Materials*, **2007**, 348-349, 701-704	0.4	
31	Residual Stress on Titanium Alloy Welded Joints **2007**, 947-948		2
30	An application of the differential thermographic technique for welded joints fatigue evaluation **2006**,		2
29	Measurement of deflections experienced by electronic chips during soldering. *Journal of Strain Analysis for Engineering Design*, **2006**, 41, 597-608	1.3	3
28	Identification of mechanical properties of bovine bones by combining PS-ESPI and global optimization **2006**, 6341, 42		2

27	Structural behaviour of endodontically treated teeth under thermomechanical loading. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2006**, 220, 909-28	1.7	2
26	Mechanical characterization of hyperelastic materials with fringe projection and optimization techniques. *Optics and Lasers in Engineering*, **2006**, 44, 423-442	4.6	34
25	Whole 3D shape reconstruction of vascular segments under pressure via fringe projection techniques. *Optics and Lasers in Engineering*, **2006**, 44, 1311-1323	4.6	17
24	Mechanical behavior of an osteotomized mandible with distraction orthodontic devices. *Journal of Biomechanics*, **2006**, 39, 2907-18	2.9	28
23	An efficient Sequential Linear Programming algorithm for engineering optimization. *Journal of Engineering Design*, **2005**, 16, 353-371	1.8	8
22	Finite element analysis of a new customized composite post system for endodontically treated teeth. *Journal of Biomechanics*, **2005**, 38, 2375-89	2.9	63
21	Improved globall□ocal simulated annealing formulation for solving non-smooth engineering optimization problems. *International Journal of Solids and Structures*, **2005**, 42, 203-237	3.1	34
20	A local strain method for the evaluation of welded joints fatigue resistance: the case of thin main-plates thickness. *Fatigue and Fracture of Engineering Materials and Structures*, **2005**, 28, 759-767	3	11
19	A new hybrid technique for in-plane characterization of orthotropic materials. *Experimental Mechanics*, **2004**, 44, 584-592	2.6	23
18	A comprehensive ESPI based system for combined measurement of shape and deformation of electronic components. *Optics and Lasers in Engineering*, **2004**, 42, 543-562	4.6	19
17	Improved sequential linear programming formulation for structural weight minimization. *Computer Methods in Applied Mechanics and Engineering*, **2004**, 193, 3493-3521	5.7	27
16	Stress concentration factors in square and circular cross-sectioned bars with axial slots. *Journal of Strain Analysis for Engineering Design*, **2003**, 38, 247-258	1.3	5
15	A numerical code for lay-out optimization of skeletal structures with sequential linear programming. *Engineering With Computers*, **2003**, 19, 101-129	4.5	6
14	Measurements of strain during vapour deposition of thin films and multilayers. *Thin Solid Films*, **2003**, 433, 144-148	2.2	4
13	A time-of-scan laser triangulation technique for distance measurements. *Optics and Lasers in Engineering*, **2003**, 39, 247-254	4.6	19
12	Move limits definition in structural optimization with sequential linear programming. Part I: Optimization algorithm. *Computers and Structures*, **2003**, 81, 197-213	4.5	30
11	Move limits definition in structural optimization with sequential linear programming. Part II: Numerical examples. *Computers and Structures*, **2003**, 81, 215-238	4.5	31
10	Design optimization of large-scale structures with sequential linear programming. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2002**, 216, 799-811	1.3	3

9	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
8	Thermographic investigation of sandwich structure made of composite material. *NDT and E International*, **2001**, 34, 515-520	4.1	28
7	An experimental investigation of static and fatigue behaviour of sandwich composite panels joined by fasteners. *Composites Part B: Engineering*, **2001**, 32, 299-308	10	47
6	Local strain for fatigue strength of welded structures. *Journal of Strain Analysis for Engineering Design*, **2001**, 36, 605-610	1.3	4
5	Fatigue Strength of Welded Joints by the Local Strain Method **2001**, 307-316		
4	Comparison of the numerical efficiency of different sequential linear programming based algorithms for structural optimisation problems. *Computers and Structures*, **2000**, 76, 713-728	4.5	40
3	Stress field near sharp notches. *Journal of Materials Processing Technology*, **1992**, 32, 155-160	5.3	4
2	Sharp V-Notches Subjected to Axial and Shear Stresses **1990**, 711-719		2
1	Evaluation of fatigue strenght of welded structures by local strain measurements. *Experimental Mechanics*, **1985**, 25, 129-139	2.6	15