

# Telmo G Santos

## List of Publications by Year in descending order

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Version: 2024-02-01

83  
papers

3,219  
citations

186209

28  
h-index

161767

54  
g-index

85  
all docs

85  
docs citations

85  
times ranked

2315  
citing authors

#	ARTICLE	IF	CITATIONS
1	Functionalized material production via multi-stack Upward Friction Stir Processing (UFSP). <i>Materials and Manufacturing Processes</i> , 2022, 37, 11-24.	2.7	7
2	New directions for inline inspection of automobile laser welds using non-destructive testing. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 118, 1183-1195.	1.5	15
3	Double active transient thermography. <i>NDT and E International</i> , 2022, 125, 102566.	1.7	10
4	Steel-copper functionally graded material produced by twin-wire and arc additive manufacturing (T-WAAM). <i>Materials and Design</i> , 2022, 213, 110270.	3.3	120
5	Effect of contaminations on the acoustic emissions during wire and arc additive manufacturing of 316L stainless steel. <i>Additive Manufacturing</i> , 2022, 51, 102585.	1.7	45
6	Orthogonal cutting of Wire and Arc Additive Manufactured parts. <i>International Journal of Advanced Manufacturing Technology</i> , 2022, 119, 4439-4459.	1.5	5
7	Micro wire and arc additive manufacturing ( $\mu$ -WAAM). <i>Additive Manufacturing Letters</i> , 2022, 2, 100032.	0.9	10
8	Fabrication of a biodegradable and cytocompatible magnesium/nanohydroxyapatite/fluorapatite composite by upward friction stir processing for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 129, 105137.	1.5	18
9	In situ monitoring of wire and arc additive manufacturing by digital image correlation: a case study. <i>Procedia Structural Integrity</i> , 2022, 37, 33-40.	0.3	2
10	In-situ hot forging directed energy deposition-arc of CuAl8 alloy. <i>Additive Manufacturing</i> , 2022, 55, 102847.	1.7	2
11	Shaping Eddy Currents for Non-Destructive Testing Using Additive Manufactured Magnetic Substrates. <i>Journal of Nondestructive Evaluation</i> , 2022, 41, .	1.1	13
12	Mechanical characterization and fatigue assessment of wire and arc additively manufactured HSLA steel parts. <i>International Journal of Fatigue</i> , 2022, 164, 107146.	2.8	14
13	Analysis of copper sheets welded by fiber laser with beam oscillation. <i>Optics and Laser Technology</i> , 2021, 133, 106563.	2.2	23
14	Wire and Arc Additive Manufacturing of High-Strength Low-Alloy Steel: Microstructure and Mechanical Properties. <i>Advanced Engineering Materials</i> , 2021, 23, 2001036.	1.6	25
15	Continuous wave terahertz imaging for NDT: Fundamentals and experimental validation. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 172, 108904.	2.5	20
16	In Situ Monitoring of Additive Manufacturing Using Digital Image Correlation: A Review. <i>Materials</i> , 2021, 14, 1511.	1.3	40
17	Benchmarking of Nondestructive Testing for Additive Manufacturing. <i>3D Printing and Additive Manufacturing</i> , 2021, 8, 263-270.	1.4	24
18	Ultracold-Wire and arc additive manufacturing (UC-WAAM). <i>Journal of Materials Processing Technology</i> , 2021, 296, 117196.	3.1	67

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19	High-speed inspection of delamination defects in unidirectional CFRP by non-contact eddy current testing. Composites Part B: Engineering, 2021, 224, 109167.	5.9	27
20	Effect of heat treatments on 316 stainless steel parts fabricated by wire and arc additive manufacturing : Microstructure and synchrotron X-ray diffraction analysis. Additive Manufacturing, 2021, 48, 102428.	1.7	42
21	Multisensor Inspection of Laser-Brazed Joints in the Automotive Industry. Sensors, 2021, 21, 7335.	2.1	12
22	Revisiting fundamental welding concepts to improve additive manufacturing: From theory to practice. Progress in Materials Science, 2020, 107, 100590.	16.0	390
23	Effect of milling parameters on HSLA steel parts produced by Wire and Arc Additive Manufacturing (WAAM). Journal of Manufacturing Processes, 2020, 59, 739-749.	2.8	94
24	Production and characterization of functionally graded NiTi shape memory alloys by Joule effect. Journal of Materials Processing Technology, 2020, 285, 116803.	3.1	6
25	Embedded Fiber Sensors to Monitor Temperature and Strain of Polymeric Parts Fabricated by Additive Manufacturing and Reinforced with NiTi Wires. Sensors, 2020, 20, 1122.	2.1	16
26	Hot forging wire and arc additive manufacturing (HF-WAAM). Additive Manufacturing, 2020, 35, 101193.	1.7	40
27	In-situ strengthening of a high strength low alloy steel during Wire and Arc Additive Manufacturing (WAAM). Additive Manufacturing, 2020, 34, 101200.	1.7	57
28	Effects of voltage on the components of surface integrity of Al <sub>2</sub> O <sub>3</sub> ceramic coatings on AA2024 by plasma electrolytic oxidation. Journal of Adhesion Science and Technology, 2020, 34, 1971-1981.	1.4	6
29	Influence of processing parameters on the density of 316L stainless steel parts manufactured through laser powder bed fusion. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2020, 234, 1246-1257.	1.5	23
30	Reliability and NDT Methods. Advanced Structured Materials, 2020, , 265-295.	0.3	11
31	Phased Array Ultrasonic Inspection of Metal Additive Manufacturing Parts. Journal of Nondestructive Evaluation, 2019, 38, 1.	1.1	47
32	Non-destructive testing for wire + arc additive manufacturing of aluminium parts. Additive Manufacturing, 2019, 29, 100782.	1.7	15
33	In Situ Structural Characterization of Functionally Graded NiTi Shape Memory Alloy During Tensile Loading. Shape Memory and Superelasticity, 2019, 5, 457-467.	1.1	4
34	Simulation and validation of thermography inspection for components produced by additive manufacturing. Applied Thermal Engineering, 2019, 159, 113872.	3.0	23
35	Wire and arc additive manufacturing of HSLA steel: Effect of thermal cycles on microstructure and mechanical properties. Additive Manufacturing, 2019, 27, 440-450.	1.7	137
36	Current Status and Perspectives on Wire and Arc Additive Manufacturing (WAAM). Materials, 2019, 12, 1121.	1.3	391

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37	Evaluation of Different Non-destructive Testing Methods to Detect Imperfections in Unidirectional Carbon Fiber Composite Ropes. <i>Journal of Nondestructive Evaluation</i> , 2019, 38, 1.	1.1	20
38	Local magnetic flux density measurements for temperature control of transient and non-homogeneous processing of steels. <i>Scientific Reports</i> , 2019, 9, 17900.	1.6	2
39	Contactless high-speed eddy current inspection of unidirectional carbon fiber reinforced polymer. <i>Composites Part B: Engineering</i> , 2019, 168, 226-235.	5.9	44
40	Non-destructive microstructural analysis by electrical conductivity: Comparison with hardness measurements in different materials. <i>Journal of Materials Science and Technology</i> , 2019, 35, 360-368.	5.6	42
41	Non-destructive testing application of radiography and ultrasound for wire and arc additive manufacturing. <i>Additive Manufacturing</i> , 2018, 21, 298-306.	1.7	121
42	Magnetic pulse welding: machine optimisation for aluminium tubular joints production. <i>Science and Technology of Welding and Joining</i> , 2018, 23, 172-179.	1.5	19
43	Effect of processing temperatures on the properties of a high-strength steel welded by FSW. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2018, 62, 1173-1185.	1.3	23
44	FSW of aluminum AA5754 to steel DX54 with innovative overlap joint. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2017, 61, 257-268.	1.3	28
45	Novel eddy current probes for pipes: Application in austenitic round-in-square profiles of ITER. <i>NDT and E International</i> , 2017, 87, 111-118.	1.7	33
46	Nondestructive testing in microfabrication using bacteria. <i>Ciência &amp; Tecnologia Dos Materiais</i> , 2017, 29, e262-e264.	0.5	0
47	Production of Al/NiTi composites by friction stir welding assisted by electrical current. <i>Materials and Design</i> , 2017, 113, 311-318.	3.3	61
48	Using Biotechnology to Solve Engineering Problems: Non-Destructive Testing of Microfabrication Components. <i>Materials</i> , 2017, 10, 788.	1.3	4
49	Influence of thermal debinding on the final properties of Fe-Si soft magnetic alloys for metal injection molding (MIM). <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 416, 342-347.	1.0	28
50	Developments in micro- and nano-defects detection using bacterial cells. <i>NDT and E International</i> , 2016, 78, 20-28.	1.7	4
51	Nova Técnica de END Baseada em Células Bacterianas para Detecção de Micro e Nano Defeitos Superficiais. <i>Soldagem E Inspecao</i> , 2015, 20, 253-259.	0.6	4
52	A new dual driver planar eddy current probe with dynamically controlled induction pattern. <i>NDT and E International</i> , 2015, 70, 29-37.	1.7	27
53	Surface discontinuity detection using bacterial suspensions. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2015, 59, 723-730.	1.3	3
54	Surface reinforcement of AA5083-H111 by friction stir processing assisted by electrical current. <i>Journal of Materials Processing Technology</i> , 2015, 216, 375-380.	3.1	31

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55	A Non-Conventional Technique for Evaluating Welded Joints Based on the Electrical Conductivity. Key Engineering Materials, 2014, 611-612, 671-676.	0.4	2
56	Characterization of airborne particles generated from metal active gas welding process. Inhalation Toxicology, 2014, 26, 345-352.	0.8	21
57	Characterization of FSP by electrical conductivity. , 2014, , 153-176.		1
58	A new NDT technique based on bacterial cells to detect micro surface defects. NDT and E International, 2014, 63, 43-49.	1.7	21
59	Friction Stir Welding assisted by electrical Joule effect. Journal of Materials Processing Technology, 2014, 214, 2127-2133.	3.1	74
60	Emission of Nanoparticles During Friction Stir Welding (FSW) of Aluminium Alloys. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2014, 77, 924-930.	1.1	6
61	Innovative concept and application of EC probe for inspection of friction stir welds. International Journal of Microstructure and Materials Properties, 2014, 9, 314.	0.1	2
62	Magnetic pulse welding on the cutting edge of industrial applications. Soldagem E Inspecao, 2014, 19, 69-81.	0.6	25
63	Process Developments in FSW. Advances in Intelligent Systems and Computing, 2014, , 1015-1021.	0.5	0
64	Analyzing mechanical properties and nondestructive characteristics of brazed joints of NiTi shape memory alloys to carbon steel rods. International Journal of Advanced Manufacturing Technology, 2013, 66, 787-793.	1.5	12
65	Advances in NDT and Materials Characterization by Eddy Currents. Procedia CIRP, 2013, 7, 359-364.	1.0	33
66	Geometric optimization of a differential planar eddy currents probe for non-destructive testing. Sensors and Actuators A: Physical, 2013, 197, 96-105.	2.0	43
67	Reinforcement strategies for producing functionally graded materials by friction stir processing in aluminium alloys. Journal of Materials Processing Technology, 2013, 213, 1609-1615.	3.1	82
68	Application of Eddy Currents in Processed Materials Structural Evaluation. Materials Science Forum, 2012, 730-732, 715-720.	0.3	0
69	Comparison of deposited surface area of airborne ultrafine particles generated from two welding processes. Inhalation Toxicology, 2012, 24, 774-781.	0.8	29
70	New method employing the electrical impedance for monitoring mechanical damage evolution in glass-reinforced: Applications to riveted joints. Materials & Design, 2012, 42, 25-31.	5.1	0
71	A differential planar eddy currents probe: Fundamentals, modeling and experimental evaluation. NDT and E International, 2012, 51, 85-93.	1.7	57
72	Application Of Eddy Current Techniques To Inspect Friction Spot Welds In Aluminium Alloy Aa2024 And A Composite Material. Welding in the World, Le Soudage Dans Le Monde, 2011, 55, 12-18.	1.3	9

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73	Modification of electrical conductivity by friction stir processing of aluminum alloys. International Journal of Advanced Manufacturing Technology, 2011, 57, 511-519.	1.5	29
74	Electrical conductivity field analysis for evaluation of FSW joints in AA6013 and AA7075 alloys. Journal of Materials Processing Technology, 2011, 211, 174-180.	3.1	43
75	Microstructural mapping of friction stir welded AA 7075-T6 and AlMgSc alloys using electrical conductivity. Science and Technology of Welding and Joining, 2011, 16, 630-635.	1.5	28
76	Advanced technique for non-destructive testing of friction stir welding of metals. Measurement: Journal of the International Measurement Confederation, 2010, 43, 1021-1030.	2.5	94
77	A reconfigurable digital signal processing system for eddy currents non-destructive testing. , 2010, , .		12
78	INNOVATIVE EDDY CURRENT PROBE FOR MICRO DEFECTS. AIP Conference Proceedings, 2010, , .	0.3	3
79	Microstructural modification and ductility enhancement of surfaces modified by FSP in aluminium alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 506, 16-22.	2.6	83
80	Mechanical and metallurgical characterization of friction stir welding joints of AA6061-T6 with AA6082-T6. Materials & Design, 2009, 30, 180-187.	5.1	183
81	Computational Tools for Modelling FSW and an Improved Tool for NDT. Welding in the World, Le Soudage Dans Le Monde, 2009, 53, R99-R108.	1.3	8
82	Data fusion in non destructive testing using fuzzy logic to evaluate friction stir welding. Welding International, 2008, 22, 826-833.	0.3	9
83	Friction Stir Welding Assisted by Electrical Joule Effect to Overcome Lack of Penetration in Aluminium Alloys. Key Engineering Materials, 0, 611-612, 763-772.	0.4	10