

# Paolo Ferro

## List of Publications by Year in Descending Order

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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.

112 papers	1,515 citations	24 h-index	35 g-index
119 ext. papers	1,803 ext. citations	2.4 avg, IF	5.51 L-index

#	Paper	IF	Citations
112	Residual Notch Stress Intensity Factor assessment via 3D welding numerical simulation: influence of power input. <i>Procedia Structural Integrity</i> , <b>2022</b> , 39, 120-127	1	0
111	Metallurgical Characterization of Co-Cr-Mo Parts Processed by a Hybrid Manufacturing Technology. <i>Physical Mesomechanics</i> , <b>2022</b> , 25, 155-167	1.6	
110	Quantitative analyses on geometric shape effect of microdefect on fatigue accumulation in 316L stainless steel. <i>Engineering Fracture Mechanics</i> , <b>2022</b> , 269, 108517	4.2	1
109	Influence of short-term post welding heat treatments on corrosion resistance of UNS N06625 nickel-chromium-molybdenum alloy. <i>Procedia Structural Integrity</i> , <b>2022</b> , 41, 430-438	1	
108	Quantifying lamellar microstructural effect on the fatigue performance of bimodal Ti-6Al-4V with microdefect. <i>International Journal of Fatigue</i> , <b>2022</b> , 107045	5	0
107	The influence of welding heat input on Residual Notch Stress Intensity Factor. <i>International Journal of Fatigue</i> , <b>2022</b> , 163, 107042	5	
106	Rapid Calculation of Residual Stresses in Dissimilar S355-AA6082 Butt Welds. <i>Materials</i> , <b>2021</b> , 14,	3.5	1
105	Setup of a numerical model for Post Welding Heat Treatment simulation of steel joints. <i>Procedia Structural Integrity</i> , <b>2021</b> , 33, 198-206	1	
104	Preliminary Finite Element assessment of residual stresses in dissimilar AA6082-S355 butt welded joints produced with the Hybrid Metal Extrusion and Bonding (HYB) technique. <i>Procedia Structural Integrity</i> , <b>2021</b> , 33, 704-713	1	
103	Effect of Heat Input on Distortions and Residual Stresses Induced by Gas Tungsten Arc Welding in SS 316L to INCONEL625 Multipass Dissimilar Welded Joints. <i>Advances in Materials Science and Engineering</i> , <b>2021</b> , 2021, 1-9	1.5	0
102	Influence of aluminum casting alloys chemical composition on the interaction with a 304L stainless steel insert. <i>Procedia Structural Integrity</i> , <b>2021</b> , 33, 189-197	1	0
101	Microstructural and mechanical characterization of a stainless-steel wire mesh reinforced Al-matrix composite: Bimetallic components for lightweight design. <i>Frattura Ed Integrita Strutturale</i> , <b>2021</b> , 15, 289-301	0.9	5
100	Thermal and Residual Stress Distributions in Inconel 625 Butt-Welded Plates: Simulation and Experimental Validation. <i>Advances in Materials Science and Engineering</i> , <b>2021</b> , 2021, 1-12	1.5	1
99	Long solidification time effect on solution strengthened ferritic ductile iron fatigue properties. <i>International Journal of Fatigue</i> , <b>2021</b> , 145, 106137	5	7
98	Crack initiation and propagation from geometric microdefects: Experiment and transition fatigue behavior. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2021</b> , 44, 2323-2336	3	5
97	A simplified non-linear numerical method for the assessment of welding induced deformations. <i>Marine Structures</i> , <b>2021</b> , 78, 102982	3.8	2
96	Mechanical and Metallurgical Properties of CO2 Laser Beam INCONEL 625 Welded Joints. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 7002	2.6	2

95	Product design from an environmental and critical raw materials perspective. <i>International Journal of Sustainable Engineering</i> , <b>2021</b> , 14, 1-11	3.1	5
94	Porosity effect on tensile behavior of Ti-6Al-4V specimens produced by laser engineered net shaping technology. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , <b>2021</b> , 235, 1930-1937	1.3	11
93	Fatigue strength assessment of heavy section ductile irons through the average strain density energy criterion. <i>Material Design and Processing Communications</i> , <b>2021</b> , 3, e197	0.9	1
92	Residual Notch Stress Intensity Factors in Welded Joints Evaluated by 3D Numerical Simulations of Arc Welding Processes. <i>Materials</i> , <b>2021</b> , 14,	3.5	5
91	Does metallurgy affect the residual notch stress intensity factor value induced by welding operations? A comprehensive study via a 3D numerical model. <i>International Journal of Fatigue</i> , <b>2021</b> , 149, 106261	5	4
90	Is 2D numerical modelling of welding process able to capture the residual notch stress intensity factor values?. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2021</b> , 114, 103006	3.7	3
89	Defects as a root cause of fatigue weakening of additively manufactured AlSi10Mg components. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2020</b> , 108, 102611	3.7	29
88	The effect of Equal Channel Angular Pressing on the stress corrosion cracking susceptibility of AZ31 alloy in simulated body fluid. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2020</b> , 106, 103724	4.1	16
87	Post welding heat treatment improving mechanical properties on Ti-6Al-4V. <i>Procedia Structural Integrity</i> , <b>2020</b> , 26, 11-19	1	2
86	How to apply mitigating actions against critical raw materials issues in mechanical design. <i>Procedia Structural Integrity</i> , <b>2020</b> , 26, 28-34	1	1
85	Determination of Fatigue Limit by Static Thermographic Method and Classic Thermographic Method on Notched Specimens. <i>Procedia Structural Integrity</i> , <b>2020</b> , 26, 166-174	1	10
84	Simulating the dependence of the filler wire feeding on the wire size in the hybrid metal extrusion & bonding (HYB) process. <i>Procedia Structural Integrity</i> , <b>2020</b> , 26, 321-329	1	7
83	Estimation of multi-pass welds deformations with Virtual Weld Bead method. <i>Procedia Structural Integrity</i> , <b>2020</b> , 25, 149-158	1	5
82	Raw materials criticalities in material selection & design <b>2020</b> , 3, 017-019		
81	Alloy Substitution in a Critical Raw Materials Perspective. <i>Frattura Ed Integrita Strutturale</i> , <b>2020</b> , 14, 81-90.	0.9	4
80	A Semi-Analytical Model for the Heat Generation during Hybrid Metal Extrusion and Bonding (HYB). <i>Materials</i> , <b>2020</b> , 14,	3.5	6
79	Understanding powder bed fusion additive manufacturing phenomena via numerical simulation. <i>Frattura Ed Integrita Strutturale</i> , <b>2020</b> , 14, 252-284	0.9	6
78	High Density AlSi10Mg Aluminium Alloy Specimens Obtained by Selective Laser Melting. <i>Lecture Notes in Mechanical Engineering</i> , <b>2020</b> , 871-878	0.4	1

77	The strain energy density approach applied to bonded joints. <i>Procedia Structural Integrity</i> , <b>2020</b> , 28, 19-25		2
76	A Novel Method for Welding Residual Deformations Prediction. <i>Procedia Structural Integrity</i> , <b>2020</b> , 28, 171-179	1	2
75	Porosity Inducing Process Parameters in Selective Laser Melted AlSi10Mg Aluminium Alloy. <i>Physical Mesomechanics</i> , <b>2020</b> , 23, 256-262	1.6	16
74	Cr Segregation and Impact Fracture in a Martensitic Stainless Steel. <i>Coatings</i> , <b>2020</b> , 10, 843	2.9	6
73	Adhesively bonded joint brittle fracture assessment via average strain energy density criterion. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2020</b> , 43, 2907-2914	3	4
72	A modified volumetric energy densityBased approach for porosity assessment in additive manufacturing process design. <i>International Journal of Advanced Manufacturing Technology</i> , <b>2020</b> , 110, 1911-1921	3.2	20
71	Effect of Seismic Load on Welded Structures Deformation. <i>Procedia Structural Integrity</i> , <b>2020</b> , 28, 162-170		2
70	A First Approach on Modelling the Thermal and Microstructure Fields During Aluminium Butt Welding Using the HYB PinPoint Extruder. <i>Procedia Structural Integrity</i> , <b>2020</b> , 28, 2253-2260	1	5
69	Materials selection in a critical raw materials perspective. <i>Materials and Design</i> , <b>2019</b> , 177, 107848	8.1	34
68	An efficient model for the TIG-dressing process numerical simulation. <i>Material Design and Processing Communications</i> , <b>2019</b> , 1, e35	0.9	
67	Calculation of 3D residual notch stress intensity factors by means of the peak stress method. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2019</b> , 100, 377-382	3.7	8
66	A Numerical and Experimental Analysis of Inconel 625 Electron-Beam Welding Thermal Aspects. <i>Procedia Structural Integrity</i> , <b>2019</b> , 18, 63-74	1	4
65	Numerical modelling of residual stress redistribution induced by TIG-dressing. <i>Frattura Ed Integrita Strutturale</i> , <b>2019</b> , 13, 221-230	0.9	4
64	A metallurgical and thermal analysis of Inconel 625 electron-beam welded joints. <i>Frattura Ed Integrita Strutturale</i> , <b>2019</b> , 13, 251-263	0.9	2
63	A novel algorithm for crack path identification based on infrared images. <i>Frattura Ed Integrita Strutturale</i> , <b>2019</b> , 13, 116-124	0.9	
62	Design for Recycling in a Critical Raw Materials Perspective. <i>Recycling</i> , <b>2019</b> , 4, 44	3.2	5
61	A Solidification Time-Based Method for Rapid Evaluation of the Mechanical Properties of Grey Iron Castings. <i>International Journal of Metalcasting</i> , <b>2019</b> , 13, 845-852	1.4	0
60	Effect of Solidification Time on Microstructural, Mechanical and Fatigue Properties of Solution Strengthened Ferritic Ductile Iron. <i>Metals</i> , <b>2019</b> , 9, 24	2.3	5

59	Novel method for the fatigue strength assessment of heavy sections made by ductile cast iron in presence of solidification defects. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2018</b> , 41, 1746-1757	3	16
58	Influence of solidification defects on the fatigue behaviour of heavy-section silicon strengthened ferritic ductile cast irons. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2018</b> , 41, 2231-2238	3	10
57	The peak stress method to calculate residual notch stress intensity factors in welded joints. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2018</b> , 41, 727-738	3	9
56	Effect of Heat Treatment on Commercial AlSi12Cu1(Fe) and AlSi12(b) Aluminum Alloy Die Castings. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2018</b> , 49, 1631-1640	2.3	4
55	Fatigue strength of blunt V-notched specimens produced by selective laser melting of Ti-6Al-4V. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2018</b> , 97, 376-384	3.7	69
54	Fatigue Behavior of Porous Ti-6Al-4V Made by Laser-Engineered Net Shaping. <i>Materials</i> , <b>2018</b> , 11,	3.5	40
53	A RAPID APPROACH TO ESTIMATE THE MECHANICAL PROPERTIES OF GREY CAST IRON CASTINGS. <i>Acta Metallurgica Slovaca</i> , <b>2018</b> , 24, 213-222	2.1	2
52	The influence of metallurgical data on residual stresses in Computational Welding. <i>Procedia Structural Integrity</i> , <b>2018</b> , 9, 55-63	1	4
51	Experimental and numerical analysis of TIG-dressing applied to a steel weldment. <i>Procedia Structural Integrity</i> , <b>2018</b> , 9, 64-70	1	1
50	Mechanical Qualification of the Hybrid Metal Extrusion & Bonding (HYB) Process for Butt Welding of 4 mm Plates of AA6082-T6. <i>Procedia Structural Integrity</i> , <b>2018</b> , 9, 165-171	1	
49	Using the Hybrid Metal Extrusion & Bonding (HYB) Process for Dissimilar Joining of AA6082-T6 and S355. <i>Procedia Structural Integrity</i> , <b>2018</b> , 13, 249-254	1	14
48	Fatigue assessment of semi-circular notched specimens produced by Laser Engineered Net Shaping method. <i>MATEC Web of Conferences</i> , <b>2018</b> , 188, 03016	0.3	
47	Fracture behaviour of notched as-built EBM parts: Characterization and interplay between defects and notch strengthening behaviour. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2018</b> , 98, 178-185	3.7	13
46	Experimental Damage Criterion for Static and Fatigue Life Assessment of Commercial Aluminum Alloy Die Castings. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2017</b> , 48, 2574-2583	2.3	1
45	Molten Pool in Welding Processes: Phenomenological vs Fluid-Dynamic Numerical Simulation Approach. <i>Materials Science Forum</i> , <b>2017</b> , 884, 26-40	0.4	1
44	Fatigue strength improvement of heavy-section pearlitic ductile iron castings by in-mould inoculation treatment. <i>International Journal of Fatigue</i> , <b>2017</b> , 102, 221-227	5	18
43	Fatigue strength of sharp V-notched specimens made of ductile cast iron. <i>Engineering Failure Analysis</i> , <b>2017</b> , 82, 308-314	3.2	7
42	A simplified model for TIG-dressing numerical simulation. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2017</b> , 25, 035012	2	9

41	. <i>Strength of Materials</i> , <b>2017</b> , 49, 738-738	0.6	1
40	Effects of different production technologies on mechanical and metallurgical properties of precious metal denture alloys. <i>Open Engineering</i> , <b>2017</b> , 7, 394-402	1.7	
39	On the use of the Peak Stress Method for the calculation of Residual Notch Stress Intensity Factors: a preliminary investigation. <i>Procedia Structural Integrity</i> , <b>2017</b> , 3, 191-200	1	7
38	The effect of residual stress on fatigue behavior of V-notched components: a review. <i>Procedia Structural Integrity</i> , <b>2017</b> , 3, 119-125	1	1
37	Asymptotic residual stress distribution induced by multipass welding processes. <i>International Journal of Fatigue</i> , <b>2017</b> , 101, 421-429	5	22
36	Strain Evolution in Cold-Warm Forged Steel Components Studied by Means of EBSD Technique. <i>Materials</i> , <b>2017</b> , 10,	3.5	7
35	Fatigue Assessment of Ti-6Al-4V Circular Notched Specimens Produced by Selective Laser Melting. <i>Metals</i> , <b>2017</b> , 7, 291	2.3	47
34	The fatigue behavior of V-notches in presence of residual stresses: recent developments and future outcomes. <i>Frattura Ed Integrita Strutturale</i> , <b>2017</b> , 11, 189-195	0.9	1
33	Mechanical and fatigue properties of pearlitic ductile iron castings characterized by long solidification times. <i>Engineering Failure Analysis</i> , <b>2017</b> , 79, 902-912	3.2	15
32	Non-isothermal Dissolution Modelling of Sigma Phase in Duplex Stainless Steels. <i>Acta Metallurgica Sinica (English Letters)</i> , <b>2016</b> , 29, 859-868	2.5	2
31	Mechanical and Fatigue Properties of Heavy Section Solution Strengthened Ferritic Ductile Iron Castings . <i>Advanced Engineering Materials</i> , <b>2016</b> , 18, 2070-2075	3.5	22
30	Effect of in-mould inoculant composition on microstructure and fatigue behaviour of heavy section ductile iron castings. <i>Procedia Structural Integrity</i> , <b>2016</b> , 2, 3150-3157	1	10
29	Local strain energy density to predict size-dependent brittle fracture of cracked specimens under mixed mode loading. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2016</b> , 86, 217-224	3.7	27
28	Thermal load-induced notch stress intensity factors derived from averaged strain energy density. <i>Procedia Structural Integrity</i> , <b>2016</b> , 2, 2367-2374	1	1
27	Quantification of the Influence of Residual Stresses on Fatigue Strength of Al-Alloy Welded Joints by Means of the Local Strain Energy Density Approach. <i>Strength of Materials</i> , <b>2016</b> , 48, 426-436	0.6	32
26	Asymptotic residual stresses in butt-welded joints under fatigue loading. <i>Theoretical and Applied Fracture Mechanics</i> , <b>2016</b> , 83, 114-124	3.7	42
25	Review of recent advances in local approaches applied to pre-stressed components under fatigue loading. <i>Procedia Structural Integrity</i> , <b>2016</b> , 2, 3467-3474	1	8
24	Modelling of the carburizing and quenching process applied to caterpillar track bushings. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2014</b> , 22, 025019	2	4

23	Prediction of Defects in Multistage Cold Forging by Using Finite Element Method. <i>Key Engineering Materials</i> , <b>2014</b> , 622-623, 659-663	0.4	1
22	The local strain energy density approach applied to pre-stressed components subjected to cyclic load. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2014</b> , 37, 1268-1280	3	46
21	A dissolution kinetics model and its application to duplex stainless steels. <i>Acta Materialia</i> , <b>2013</b> , 61, 3141-3147	13.147	20
20	Effect of inoculant containing rare earth metals and bismuth on microstructure and mechanical properties of heavy-section near-eutectic ductile iron castings. <i>Journal of Materials Processing Technology</i> , <b>2013</b> , 213, 1601-1608	5.3	31
19	A Semiempirical Model for Sigma-Phase Precipitation in Duplex and Superduplex Stainless Steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2012</b> , 43, 1109-1116	2.3	25
18	Metallurgical and mechanical characterization of electron beam welded DP600 steel joints. <i>Journal of Materials Science</i> , <b>2012</b> , 47, 199-207	4.3	7
17	Fatigue properties of ductile cast iron containing chunky graphite. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2012</b> , 554, 122-128	5.3	58
16	Influence of phase transformations on the asymptotic residual stress distribution arising near a sharp V-notch tip. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2012</b> , 20, 085003	2	25
15	The Use of Matlab in Advanced Design of Bonded and Welded Joints <b>2011</b> ,		1
14	Methodologies and experimental validations of welding process numerical simulation. <i>International Journal of Computational Materials Science and Surface Engineering</i> , <b>2010</b> , 3, 114	0.4	11
13	A Semianalytical Thermal Model for Fusion Stir Welding. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2010</b> , 41, 440-449	2.3	14
12	Annealing temperature effects on super duplex stainless steel UNS S32750 welded joints. I: microstructure and partitioning of elements. <i>Journal of Materials Science</i> , <b>2010</b> , 45, 4369-4377	4.3	25
11	Annealing temperature effects on superduplex stainless steel UNS S32750 welded joints. II: pitting corrosion resistance evaluation. <i>Journal of Materials Science</i> , <b>2010</b> , 45, 4378-4389	4.3	27
10	Asymptotic thermal and residual stress distributions due to transient thermal loads. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2009</b> , 32, 936-948	3	24
9	The influence of phase transformations on residual stresses induced by the welding processBD and 2D numerical models. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2006</b> , 14, 117-136	13.6	71
8	Induction heat treatment of a ISO C45 steel bar: Experimental and numerical analysis. <i>Computational Materials Science</i> , <b>2006</b> , 35, 98-106	3.2	57
7	Generalized stress intensity factors due to steady and transient thermal loads with applications to welded joints. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , <b>2006</b> , 29, 440-453	3	27
6	Microstructural, compositional and residual stress evaluation of CO2 laser welded superaustenitic AISI 904L stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2006</b> , 424, 117-127	5.3	64



5	An investigation of fusion zone microstructures in electron beam welding of copper-stainless steel. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2006</b> , 424, 163-173	5.3	133
4	Investigation of electron-beam welding in wrought Inconel 706—experimental and numerical analysis. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2005</b> , 392, 94-105	5.3	68
3	Laser welding of copper-nickel alloys: a numerical and experimental analysis. <i>Science and Technology of Welding and Joining</i> , <b>2005</b> , 10, 299-310	3.7	26
2	A two-term stress function approach to evaluate stress distributions in bonded joints of different geometries. <i>Journal of Strain Analysis for Engineering Design</i> , <b>2002</b> , 37, 385-398	1.3	27
1	Welding Processes, Microstructural Evolution and Final Properties of Duplex and Superduplex Stainless Steels141-159		1