Roberto Tovo

List of Publications by Year
in descending order

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66	2,550	172457	189892
papers	citations	29	50
		h-index	g-index

67	67	67	960
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Developments of some explicit formulas useful to describe elastic stress fields ahead of notches in plates. International Journal of Solids and Structures, 2002, 39, 4543-4565.	2.7	286
2	Spectral methods for lifetime prediction under wide-band stationary random processes. International Journal of Fatigue, 2005, 27, 867-877.	5.7	272
3	On the fatigue behaviour and design curves of friction stir butt-welded Al alloys. International Journal of Fatigue, 2005, 27, 305-316.	5.7	153
4	Cycle distribution and fatigue damage under broad-band random loading. International Journal of Fatigue, 2002, 24, 1137-1147.	5.7	150
5	Comparison of spectral methods for fatigue analysis of broad-band Gaussian random processes. Probabilistic Engineering Mechanics, 2006, 21, 287-299.	2.7	146
6	The mean stress effect on the high-cycle fatigue strength from a multiaxial fatigue point of view. International Journal of Fatigue, 2005, 27, 928-943.	5.7	134
7	From a local stress approach to fracture mechanics: a comprehensive evaluation of the fatigue strength of welded joints. Fatigue and Fracture of Engineering Materials and Structures, 1999, 22, 369-381.	3.4	88
8	Cycle distribution and fatigue damage assessment in broad-band non-Gaussian random processes. Probabilistic Engineering Mechanics, 2005, 20, 115-127.	2.7	73
9	A stress invariant based criterion to estimate fatigue damage under multiaxial loading. International Journal of Fatigue, 2008, 30, 1646-1658.	5.7	70
10	A stress invariant based spectral method to estimate fatigue life under multiaxial random loading. International Journal of Fatigue, 2011, 33, 887-899.	5.7	65
11	Fatigue life assessment in non-Gaussian random loadings. International Journal of Fatigue, 2006, 28, 733-746.	5.7	57
12	Estimating fatigue damage under variable amplitude multiaxial fatigue loading. Fatigue and Fracture of Engineering Materials and Structures, 2011, 34, 1053-1077.	3.4	56
13	An implicit gradient application to fatigue of sharp notches and weldments. Engineering Fracture Mechanics, 2007, 74, 515-526.	4.3	54
14	On the fatigue reliability evaluation of structural components under service loading. International Journal of Fatigue, 2001, 23, 587-598.	5.7	49
15	On fatigue damage assessment in bimodal random processesâ˜†. International Journal of Fatigue, 2007, 29, 232-244.	5.7	49
16	Relationships between local and structural stress in the evaluation of the weld toe stress distribution. International Journal of Fatigue, 1999, 21, 1063-1078.	5.7	48
17	A novel engineering method based on the critical plane concept to estimate the lifetime of weldments subjected to variable amplitude multiaxial fatigue loading. Fatigue and Fracture of Engineering Materials and Structures, 2009, 32, 441-459.	3.4	45
18	Analogies between spectral methods and multiaxial criteria in fatigue damage evaluation. Probabilistic Engineering Mechanics, 2013, 31, 39-45.	2.7	42

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19	Multiaxial fatigue strength of severely notched cast iron specimens. International Journal of Fatigue, 2014, 67, 15-27.	5.7	41
20	An implicit gradient type of static failure criterion for mixed-mode loading. International Journal of Fracture, 2006, 141, 497-511.	2.2	40
21	Local and structural multiaxial stress states in weldedjoints under fatigue loading. International Journal of Fatigue, 2006, 28, 564-575.	5.7	38
22	An implicit gradient application to fatigue of complex structures. Engineering Fracture Mechanics, 2008, 75, 1804-1814.	4.3	38
23	Intrinsic material length, Theory of Critical Distances and Gradient Mechanics: analogies and differences in processing linearâ€elastic crack tip stress fields. Fatigue and Fracture of Engineering Materials and Structures, 2013, 36, 39-55.	3.4	38
24	High-cycle fatigue crack paths in specimens having different stress concentration features. Engineering Failure Analysis, 2007, 14, 656-672.	4.0	37
25	On the use of nominal stresses to predict the fatigue strength of welded joints under biaxial cyclic loading. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 1005-1024.	3.4	36
26	A damage-based evaluation of probability density distribution for rain-flow ranges from random processes. International Journal of Fatigue, 2000, 22, 425-429.	5.7	34
27	Fatigue limit evaluation of notches, small cracks and defects: an engineering approach. Fatigue and Fracture of Engineering Materials and Structures, 2004, 27, 1037-1049.	3.4	34
28	Estimating the orientation of Stage I crack paths through the direction of maximum variance of the resolved shear stress. International Journal of Fatigue, 2014, 58, 94-101.	5.7	31
29	Frequency-based fatigue analysis of non-stationary switching random loads. Fatigue and Fracture of Engineering Materials and Structures, 2007, 30, 1016-1029.	3.4	29
30	The use of the JV parameter in welded joints: Stress analysis and fatigue assessment. International Journal of Fatigue, 2009, 31, 153-163.	5.7	29
31	Accuracy of the Modified WÃ¶hler Curve Method applied along with the rref=1mm concept in estimating lifetime of welded joints subjected to multiaxial fatigue loading. International Journal of Fatigue, 2011, 33, 1075-1091.	5.7	29
32	Experimental investigation of the multiaxial fatigue strength of ductile cast iron. Theoretical and Applied Fracture Mechanics, 2014, 73, 60-67.	4.7	26
33	On fatigue cycle distribution in non-stationary switching loadings with Markov chain structure. Probabilistic Engineering Mechanics, 2010, 25, 406-418.	2.7	25
34	A numerical approach to fatigue assessment of spot weld joints. Fatigue and Fracture of Engineering Materials and Structures, 2011, 34, 32-45.	3.4	24
35	An invariantâ€based approach for highâ€cycle fatigue calculation. Fatigue and Fracture of Engineering Materials and Structures, 2009, 32, 310-324.	3.4	22
36	Fatigue damage assessment of a car body-in-white using a frequency-domain approach. International Journal of Materials and Product Technology, 2007, 30, 172.	0.2	20

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37	An application of the implicit gradient method to welded structures under multiaxial fatigue loadings. International Journal of Fatigue, 2009, 31, 12-19.	5.7	18
38	Numerical evaluation of fatigue strength on mechanical notched components under multiaxial loadings. International Journal of Fatigue, 2011, 33, 661-671.	5.7	15
39	Implicit gradient and integral average effective stresses: relationships and numerical approximations. Fatigue and Fracture of Engineering Materials and Structures, 2015, 38, 190-199.	3.4	12
40	Variability of the fatigue damage due to the randomness of a stationary vibration load. International Journal of Fatigue, 2020, 141, 105891.	5.7	12
41	Analysis of the thickness effect in thin steel welded structures under uniaxial fatigue loading. International Journal of Fatigue, 2017, 101, 363-370.	5.7	11
42	Vibration fatigue tests by tri-axis shaker: design of an innovative system for uncoupled bending/torsion loading. Procedia Structural Integrity, 2018, 8, 92-101.	0.8	10
43	Geometrical Size Effect in High Cycle Fatigue Strength of Heavy-walled Ductile Cast Iron GJS400: Weakest Link vs Defect-based Approach. Procedia Engineering, 2014, 74, 101-104.	1.2	8
44	Fatigue strength of aluminium welded joints by a non-local approach. International Journal of Fatigue, 2021, 143, 106000.	5.7	8
45	The effect of throat underflushing on the fatigue strength of fillet weldments. Fatigue and Fracture of Engineering Materials and Structures, 2013, 36, 884-892.	3.4	7
46	Variance of fatigue damage in stationary random loadings: comparison between time- and frequency-domain results. Procedia Structural Integrity, 2019, 24, 398-407.	0.8	7
47	An Integrated Data Acquisition System for onâ€Water Measurement of Performance in Rowing. Strain, 2010, 46, 493-509.	2.4	5
48	Overview of the geometrical influence on the fatigue strength of steel butt welds by a nonlocal approach. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 502-514.	3.4	5
49	An innovative system for uncoupled bending/torsion tests by tri-axis shaker: numerical simulations and experimental results. MATEC Web of Conferences, 2018, 165, 16006.	0.2	4
50	Mode I Stress Intensity Factors for triangular corner crack nearby intersecting of cylindrical holes. Frattura Ed Integrita Strutturale, 2013, 7, 80-91.	0.9	3
51	On the notch sensitivity of cast iron under multi-axial fatigue loading. Frattura Ed Integrita Strutturale, 2014, 8, 558-568.	0.9	3
52	The positive ion injector for ALPI. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 382, 245-251.	1.6	2
53	Numerical predictions of the fatigue life of aluminium welded joints. Procedia Structural Integrity, 2020, 26, 46-52.	0.8	2
54	Crack initiation and propagation paths in small diameter FSW 6082-T6 aluminium tubes under fatigue loading. Frattura Ed Integrita Strutturale, 2016, 10, 119-129.	0.9	2

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55	On numerical integration for effective stress assessment at notches. Frattura Ed Integrita Strutturale, 2013, 7, 117-123.	0.9	1
56	Bi-conditional probabilistic fatigue stress-based curve definition and comparison with other models. MATEC Web of Conferences, 2014, 12, 02003.	0.2	1
57	Fatigue Behaviour of Al 6082-T6 Friction Stir Welded Tubular Joints under Torsional Loading. Key Engineering Materials, 0, 627, 193-196.	0.4	1
58	Implicit gradient approach for numerical analysis of laser welded joints. Procedia Structural Integrity, 2018, 8, 309-317.	0.8	1
59	Fatigue strength of S355JC steel under harmonic and random bending-torsion loading by a tri-axis shaker: Preliminary experimental results. MATEC Web of Conferences, 2019, 300, 17006.	0.2	1
60	Experimental and Numerical Evaluation of Mechanical Stiffness of an SMC Bumper. Key Engineering Materials, 1997, 144, 135-144.	0.4	0
61	Stress Intensity Factor for Cracks at the Toe of Welded Joints. Key Engineering Materials, 2007, 348-349, 257-260.	0.4	0
62	Local and Non-Local Approaches to Fatigue of Weldments: State of the Art and Possible Developments. Key Engineering Materials, 2007, 348-349, 529-532.	0.4	0
63	Defects vs. Small Notches Competition in Fatigue Failure Initiation of Cast Steel. Key Engineering Materials, 0, 417-418, 529-532.	0.4	0
64	Special issue on Fatigue of Welded Connections. International Journal of Fatigue, 2009, 31, 1-1.	5.7	0
65	Geometrical size effect in high cycle fatigue strength of heavy-walled Ductile Cast Iron GJS400: Weakest link vs. defect-based approach. MATEC Web of Conferences, 2014, 12, 04022.	0.2	0
66	Effective stress assessment at rectangular rounded lateral notches. Frattura Ed Integrita Strutturale, 2015, 9, 183-190.	0.9	0