Shun-Peng Zhu

List of Publications by Year
in descending order

127 papers	6,742 citations	50276 46 h-index	64796 79 g-index
129 all docs	129 docs citations	129 times ranked	2781 citing authors

#	Article	IF	Citations
1	Recent advances on size effect in metal fatigue under defects: a review. International Journal of Fracture, 2022, 234, 21-43.	2.2	52
2	Probabilistic fatigue modeling of notched components under size effect using modified energy field intensity approach. Mechanics of Advanced Materials and Structures, 2022, 29, 6379-6389.	2.6	4
3	Fatigue life prediction of notched components under size effect using stress gradient-based approach. International Journal of Fracture, 2022, 234, 249-261.	2.2	16
4	Machine learning assisted probabilistic creep-fatigue damage assessment. International Journal of Fatigue, 2022, 156, 106677.	5.7	34
5	Probabilistic fatigue modelling of metallic materials under notch and size effect using the weakest link theory. International Journal of Fatigue, 2022, 159, 106788.	5.7	63
6	Combined notch and size effect modeling of metallic materials for LCF using plasticity reformulated critical distance theory. Journal of Materials Research and Technology, 2022, 18, 470-484.	5.8	7
7	Multiaxial fatigue under variable amplitude loadings: review and solutions. International Journal of Structural Integrity, 2022, 13, 349-393.	3.3	46
8	Evaluation of critical distance, highly stressed volume, and weakest-link methods in notch fatigue analysis. International Journal of Fatigue, 2022, 162, 106950.	5.7	19
9	Probabilistic fatigue assessment of notched components under size effect using generalized weakest-link model. International Journal of Fatigue, 2022, 162, 107005.	5.7	15
10	Hybrid intelligent method for fuzzy reliability analysis of corroded X100 steel pipelines. Engineering With Computers, 2021, 37, 2559-2573.	6.1	31
11	Combined TCD and HSV approach for probabilistic assessment of notch fatigue considering size effect. Engineering Failure Analysis, 2021, 120, 105093.	4.0	24
12	Cyclic plastic zone modified critical distance theory for notch fatigue analysis of metals. Engineering Failure Analysis, 2021, 121, 105163.	4.0	12
13	A crystal plasticity-based approach for creep-fatigue life prediction and damage evaluation in a nickel-based superalloy. International Journal of Fatigue, 2021, 143, 106031.	5.7	49
14	Probabilistic modeling of uncertainties in fatigue reliability analysis of turbine bladed disks. International Journal of Fatigue, 2021, 142, 105912.	5.7	121
15	Evaluation of multiaxial high-cycle fatigue criteria under proportional loading for S355 steel. Engineering Failure Analysis, 2021, 120, 105037.	4.0	29
16	Nonlinear modeling for bar bond stress using dynamical self-adjusted harmony search optimization. Engineering With Computers, 2021, 37, 409-420.	6.1	4
17	Reliability-based structural design optimization: hybridized conjugate mean value approach. Engineering With Computers, 2021, 37, 381-394.	6.1	57
18	Optimization of Load-Carrying Hierarchical Stiffened Shells: Comparative Survey and Applications of Six Hybrid Heuristic Models. Archives of Computational Methods in Engineering, 2021, 28, 4153-4166.	10.2	29

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19	Contact stress analysis and fatigue life prediction of turbine discâ€“blade attachment with firâ€tree tenon structure. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 1014-1026.	3.4	10
20	Foreign object damage tolerance and fatigue analysis of induction hardened S38C axles. Materials and Design, 2021, 202, 109488.	7.0	16
21	Fatigue assessment of EA4T railway axles under artificial surface damage. International Journal of Fatigue, 2021, 146, 106157.	5.7	25
22	The role of tensionâ€“compression asymmetrical microcrack evolution in the ignition of polymer-bonded explosives under low-velocity impact. Journal of Applied Physics, 2021, 129, .	2.5	27
23	Probabilistic fatigue life prediction of notched components using strain energy density approach. Engineering Failure Analysis, 2021, 124, 105375.	4.0	18
24	Civil Aircraft Spare Parts Prediction and Configuration Management Techniques: Review and Prospect. Advances in Mechanical Engineering, 2021, 13, 168781402110261.	1.6	7
25	Assessment of notch fatigue and size effect using stress field intensity approach. International Journal of Fatigue, 2021, 149, 106279.	5.7	33
26	Fatigue and damage tolerance assessment of induction hardened S38C axles under different foreign objects. International Journal of Fatigue, 2021, 149, 106276.	5.7	24
27	Fatigue reliability design and assessment of reactor pressure vessel structures: Concepts and validation. International Journal of Fatigue, 2021, 153, 106524.	5.7	19
28	Probabilistic modeling and simulation of multiple surface crack propagation and coalescence. Applied Mathematical Modelling, 2020, 78, 383-398.	4.2	46
29	Probabilistic modeling of fatigue crack growth and experimental verification. Engineering Failure Analysis, 2020, 118, 104862.	4.0	14
30	Human Reliability Assessment of Ergonomic Interaction Design for Engineering Software Based on Entropyâ€“FTAâ€“Delphi. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2020, 6, 04020035.	1.7	1
31	Renewable Energy and Oceanic Structures: Part IV. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2020, 173, 31-32.	0.2	2
32	The effect of notch size on critical distance and fatigue life predictions. Materials and Design, 2020, 196, 109095.	7.0	68
33	Renewable Energy and Oceanic Structures: Part III. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2020, 173, 1-2.	0.2	5
34	Design of robust superhydrophobic surfaces. Nature, 2020, 582, 55-59.	27.8	1,124
35	Uncertainty-Based Design and Optimization Using First Order Saddle Point Approximation Method for Multidisciplinary Engineering Systems. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2020, 6, .	1.7	41
36	Probabilistic fatigue assessment of notched components under size effect using critical distance theory. Engineering Fracture Mechanics, 2020, 235, 107150.	4.3	74

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37	Cyclic plastic zone-based notch analysis and damage evolution model for fatigue life prediction of metals. Materials and Design, 2020, 191, 108639.	7.0	35
38	Structural dynamic probabilistic evaluation using a surrogate model and genetic algorithm. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2020, 173, 13-27.	0.2	7
39	Reliability assessment of measurement accuracy for FBG sensors used in structural tests of the wind turbine blades based on strain transfer laws. Engineering Failure Analysis, 2020, 112, 104506.	4.0	23
40	Reliability-based optimisation for offshore structures using saddlepoint approximation. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2020, 173, 33-42.	0.2	38
41	Reliability Analysis of FRP-Confined Concrete at Ultimate using Conjugate Search Direction Method. Polymers, 2020, 12, 707.	4.5	15
42	Advanced Simulation Tools Applied to Materials Development and Design Predictions. Materials, 2020, 13, 147.	2.9	6
43	Collaborative maritime design using sequential optimisation and reliability assessment. Proceedings of the Institution of Civil Engineers: Maritime Engineering, 2020, 173, 3-12.	0.2	15
44	Recent advances on notch effects in metal fatigue: A review. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 637-659.	3.4	144
45	Fuzzy Reliability Analysis Using Genetic Optimization Algorithm Combined with Adaptive Descent Chaos Control. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2020, 6, 04020022.	1.7	9
46	Probabilistic framework for fatigue life assessment of notched components under size effects. International Journal of Mechanical Sciences, 2020, 181, 105685.	6.7	226
47	Structural reliability analysis and uncertaintiesâ€based collaborative design and optimization of turbine blades using surrogate model. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 1219-1227.	3.4	120
48	Strain energy-based multiaxial fatigue life prediction under normal/shear stress interaction. International Journal of Damage Mechanics, 2019, 28, 708-739.	4.2	57
49	High temperature fatigue and creep-fatigue behaviors in a Ni-based superalloy: Damage mechanisms and life assessment. International Journal of Fatigue, 2019, 118, 8-21.	5.7	65
50	The transformed inverse Gaussian process as an age- and state-dependent degradation model. Applied Mathematical Modelling, 2019, 75, 837-852.	4.2	27
51	Nonlinear fatigue damage accumulation: Isodamage curve-based model and life prediction aspects. International Journal of Fatigue, 2019, 128, 105185.	5.7	68
52	PSO-BP Neural Network-Based Strain Prediction of Wind Turbine Blades. Materials, 2019, 12, 1889.	2.9	45
53	An Enhanced Reliability Index Method and Its Application in Reliability-Based Collaborative Design and Optimization. Mathematical Problems in Engineering, 2019, 2019, 1-10.	1.1	26
54	Three-term conjugate approach for structural reliability analysis. Applied Mathematical Modelling, 2019, 76, 428-442.	4.2	46

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55	Stress-strain calculation and fatigue life assessment of V-shaped notches of turbine disk alloys. Engineering Failure Analysis, 2019, 106, 104187.	4.0	30
56	Reliability analysis of corroded pipelines: Novel adaptive conjugate first order reliability method. Journal of Loss Prevention in the Process Industries, 2019, 62, 103986.	3.3	36
57	SVR-RSM: a hybrid heuristic method for modeling monthly pan evaporation. Environmental Science and Pollution Research, 2019, 26, 35807-35826.	5.3	38
58	New strain energy-based critical plane approach for multiaxial fatigue life prediction. Journal of Strain Analysis for Engineering Design, 2019, 54, 310-319.	1.8	8
59	Probabilistic S-N fields based on statistical distributions applied to metallic and composite materials: State of the art. Advances in Mechanical Engineering, 2019, 11, 168781401987039.	1.6	71
60	Multiaxial fatigue analysis of notched components using combined critical plane and critical distance approach. International Journal of Mechanical Sciences, 2019, 160, 38-50.	6.7	125
61	Probabilistic modelling of notch fatigue and size effect of components using highly stressed volume approach. International Journal of Fatigue, 2019, 127, 110-119.	5.7	89
62	Energy field intensity approach for notch fatigue analysis. International Journal of Fatigue, 2019, 127, 190-202.	5.7	86
63	Probabilistic modeling of fatigue life distribution and size effect of components with random defects. International Journal of Fatigue, 2019, 126, 165-173.	5.7	114
64	Probabilistic modelling of notch and size effect of components under fatigue loadings. Procedia Structural Integrity, 2019, 22, 70-77.	0.8	3
65	Multiaxial fatigue life evaluation using strain energy-based critical plane approach. Procedia Structural Integrity, 2019, 22, 78-83.	0.8	0
66	Nonlinear fatigue damage accumulation and life prediction of metals: A comparative study. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 1271-1282.	3.4	65
67	Strain energy gradient-based LCF life prediction of turbine discs using critical distance concept. International Journal of Fatigue, 2018, 113, 33-42.	5.7	128
68	Fatigue reliability assessment of turbine discs under multiâ€source uncertainties. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 1291-1305.	3.4	158
69	Evaluation and comparison of critical plane criteria for multiaxial fatigue analysis of ductile and brittle materials. International Journal of Fatigue, 2018, 112, 279-288.	5.7	133
70	Probabilistic fatigue life prediction and reliability assessment of a high pressure turbine disc considering load variations. International Journal of Damage Mechanics, 2018, 27, 1569-1588.	4.2	145
71	Advances in structural integrity and reliability analysis for critical components. Advances in Mechanical Engineering, 2018, 10, 168781401881640.	1.6	2
72	Evaluation of size effect on strain-controlled fatigue behavior of a quench and tempered rotor steel: Experimental and numerical study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 735, 423-435.	5.6	55

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73	Critical planeâ€“based multiaxial fatigue life prediction of turbine disk alloys by refining normal stress sensitivity. Journal of Strain Analysis for Engineering Design, 2018, 53, 719-729.	1.8	25
74	A new critical plane-energy model for multiaxial fatigue life prediction of turbine disc alloys. Engineering Failure Analysis, 2018, 93, 55-63.	4.0	52
75	Computational-experimental approaches for fatigue reliability assessment of turbine bladed disks. International Journal of Mechanical Sciences, 2018, 142-143, 502-517.	6.7	222
76	Computational framework for multiaxial fatigue life prediction of compressor discs considering notch effects. Engineering Fracture Mechanics, 2018, 202, 423-435.	4.3	89
77	Mean stress effect correction in strain energy-based fatigue life prediction of metals. International Journal of Damage Mechanics, 2017, 26, 1219-1241.	4.2	104
78	A unified criterion for fatigueâ€“creep life prediction of high temperature components. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2017, 231, 677-688.	1.3	49
79	Probabilistic framework for multiaxial LCF assessment under material variability. International Journal of Fatigue, 2017, 103, 371-385.	5.7	140
80	Multidisciplinary design optimization under correlated uncertainties. Concurrent Engineering Research and Applications, 2017, 25, 262-275.	3.2	5
81	Fatigue reliability analysis of a turbine disc under multi-source uncertainties. Procedia Structural Integrity, 2017, 5, 967-972.	0.8	7
82	A new energy gradient-based model for LCF life prediction of turbine discs. Procedia Structural Integrity, 2017, 5, 856-860.	0.8	3
83	A New Energy-Critical Plane Damage Parameter for Multiaxial Fatigue Life Prediction of Turbine Blades. Materials, 2017, 10, 513.	2.9	60
84	A Combined High and Low Cycle Fatigue Model for Life Prediction of Turbine Blades. Materials, 2017, 10, 698.	2.9	85
85	Multiaxial Fatigue Damage Parameter and Life Prediction without Any Additional Material Constants. Materials, 2017, 10, 923.	2.9	72
86	A modified strain energy density exhaustion model for creepâ€“fatigue life prediction. International Journal of Fatigue, 2016, 90, 12-22.	5.7	116
87	Probabilistic Fatigue Life Prediction of Turbine Disc Considering Model Parameter Uncertainty. International Journal of Turbo and Jet Engines, 2016, 33, .	0.7	0
88	Fatigue Life Analysis of Turbine Disks Based on Load Spectra of Aero-engines. International Journal of Turbo and Jet Engines, 2016, 33, .	0.7	10
89	A new approach to the investigation of load interaction effects and its application in residual fatigue life prediction. International Journal of Damage Mechanics, 2016, 25, 672-690.	4.2	43
90	Bivariate Analysis of Incomplete Degradation Observations Based on Inverse Gaussian Processes and Copulas. IEEE Transactions on Reliability, 2016, 65, 624-639.	4.6	127

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91	Probabilistic Physics of Failure-based framework for fatigue life prediction of aircraft gas turbine discs under uncertainty. Reliability Engineering and System Safety, 2016, 146, 1-12.	8.9	232
92	Contact Stress Analysis and Fatigue Life Prediction of a Turbine Fan Disc. International Journal of Turbo and Jet Engines, 2016, 33, .	0.7	0
93	Finite Element Analysis for Turbine Blades with Contact Problems. International Journal of Turbo and Jet Engines, 2016, 33, .	0.7	2
94	Stochastic fatigue life and reliability prediction based on residual strength. Journal of Shanghai Jiaotong University (Science), 2015, 20, 331-337.	0.9	8
95	Fatigue life prediction under variable amplitude loading using a non-linear damage accumulation model. International Journal of Damage Mechanics, 2015, 24, 767-784.	4.2	47
96	A modified nonlinear fatigue damage accumulation model. International Journal of Damage Mechanics, 2015, 24, 168-181.	4.2	91
97	Uncertainty Analysis in Fatigue Life Prediction of Gas Turbine Blades Using Bayesian Inference. International Journal of Turbo and Jet Engines, 2015, 32, .	0.7	5
98	A nonlinear fatigue damage accumulation model considering strength degradation and its applications to fatigue reliability analysis. International Journal of Damage Mechanics, 2015, 24, 646-662.	4.2	49
99	Residual life prediction based on nonlinear fatigue damage accumulation model. Journal of Shanghai Jiaotong University (Science), 2015, 20, 449-453.	0.9	6
100	Probabilistic modeling of damage accumulation for time-dependent fatigue reliability analysis of railway axle steels. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2015, 229, 23-33.	2.0	69
101	A Modified Nonlinear Damage Accumulation Model for Fatigue Life Prediction Considering Load Interaction Effects. Scientific World Journal, The, 2014, 2014, 1-7.	2.1	39
102	Weighted Fuzzy Risk Priority Number Evaluation of Turbine and Compressor Blades Considering Failure Mode Correlations. International Journal of Turbo and Jet Engines, 2014, 31, .	0.7	1
103	A Bayesian optimal design for degradation tests based on the inverse Gaussian process. Journal of Mechanical Science and Technology, 2014, 28, 3937-3946.	1.5	22
104	Notice of Retraction A study on Bayesian design of degradation tests with the inverse Gaussian processes. , 2013, , .		0
105	Fatigue Reliability Analysis of Turbine Disk Alloy Using Saddlepoint Approximation. International Journal of Turbo and Jet Engines, 2013, 30, .	0.7	8
106	Notice of Retraction A novel dynamic fault tree analysis method. , 2013, , .		3
107	Bayesian framework for probabilistic low cycle fatigue life prediction and uncertainty modeling of aircraft turbine disk alloys. Probabilistic Engineering Mechanics, 2013, 34, 114-122.	2.7	103
108	Notice of Retraction A nonlinear fatigue damage accumulation model accounting for load interaction effects. , 2013, , .		0

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109	An efficient life prediction methodology for low cycle fatigueâ€“creep based on ductility exhaustion theory. International Journal of Damage Mechanics, 2013, 22, 556-571.	4.2	51
110	Notice of Retraction A modified non-linear damage accumulation model considering load interaction effects under two-level loading. , 2013, , .		0
111	Notice of Retraction A study on vibration fatigue of engineering structures. , 2013, , .		1
112	Notice of Retraction Fatigue life assessment of welded structures by effective notch stress approach. , 2013, , .		1
113	Notice of Retraction A fusion method of zero-failure data in different environments for reliability assessment of success-failure type products. , 2013, , .		0
114	Notice of Retraction Creep life prediction model of aircraft turbine disc alloy based on continuum damage mechanics. , 2013, , .		1
115	Reliability analysis of an electric control system based on type I censored test zero-failure data using Bayesian methods. , 2013, , .		1
116	An Application of Fuzzy Fault Tree Analysis to Uncontained Events of an Areo-Engine Rotor. International Journal of Turbo and Jet Engines, 2012, 29, .	0.7	7
117	A Practical Method for Determining the Corten-Dolan Exponent and Its Application to Fatigue Life Prediction. International Journal of Turbo and Jet Engines, 2012, 29, .	0.7	28
118	Fuzzy fault tree analysis of uncontained event of an areo-engine rotor. , 2012, , .		0
119	Probabilistic Low Cycle Fatigue Life Prediction Using an Energy-Based Damage Parameter and Accounting for Model Uncertainty. International Journal of Damage Mechanics, 2012, 21, 1128-1153.	4.2	77
120	A study on uncertainty analysis of fatigue reliability. , 2012, , .		0
121	Fatigue Life Estimation of an Aircaft Engine Under Different Load Spectrums. International Journal of Turbo and Jet Engines, 2012, 29, .	0.7	20
122	Probabilistic modeling of damage accumulation for fatigue reliability analysis. , 2012, , .		1
123	A generalized energy-based fatigueâ€“creep damage parameter for life prediction of turbine disk alloys. Engineering Fracture Mechanics, 2012, 90, 89-100.	4.3	141
124	A New Ductility Exhaustion Model for High Temperature Low Cycle Fatigue Life Prediction of Turbine Disk Alloys. International Journal of Turbo and Jet Engines, 2011, 28, .	0.7	18
125	Fatigue Life Estimation Considering Damaging and Strengthening of Low amplitude Loads under Different Load Sequences Using Fuzzy Sets Approach. International Journal of Damage Mechanics, 2011, 20, 876-899.	4.2	74
126	Data-driven predicting the ignition of polymer-bonded explosives with heterogeneous microcracks. Journal of Energetic Materials, 0, , 1-28.	2.0	3

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127	Preface to the special issue: structural integrity. International Journal of Fracture, 0, , .	2.2	0