Wei-Xing Yao

List of Publications by Year
in descending order

53 papers	1,521 citations	471509 17 h-index	315739 38 g-index
53 all docs	53 docs citations	53 times ranked	798 citing authors

#	Article	IF	Citations
1	The theory of critical distances: a review of its applications in fatigue. Engineering Fracture Mechanics, 2008, 75, 1706-1724.	4.3	265
2	Evaluation and comparison of several multiaxial fatigue criteria. International Journal of Fatigue, 2004, 26, 17-25.	5.7	164
3	A critical distance/plane method to estimate finite life of notched components under variable amplitude uniaxial/multiaxial fatigue loading. International Journal of Fatigue, 2012, 38, 7-24.	5.7	125
4	A simple and efficient numerical algorithm to determine the orientation of the critical plane in multiaxial fatigue problems. International Journal of Fatigue, 2010, 32, 1875-1883.	5.7	100
5	On the fatigue notch factor, Kf. International Journal of Fatigue, 1995, 17, 245-251.	5.7	92
6	An Elasto-Plastic Reformulation of the Theory of Critical Distances to Estimate Lifetime of Notched Components Failing in the Low/Medium-Cycle Fatigue Regime. Journal of Engineering Materials and Technology, Transactions of the ASME, 2010, 132, .	1.4	81
7	The Modified Mansonâ€“Coffin Curve Method to estimate fatigue lifetime under complex constant and variable amplitude multiaxial fatigue loading. International Journal of Fatigue, 2016, 83, 135-149.	5.7	72
8	Fatigue life prediction of composite laminates by FEA simulation method. International Journal of Fatigue, 2010, 32, 123-133.	5.7	71
9	Local stressâ€“strain field intensity approach to fatigue life prediction under random cyclic loading. International Journal of Fatigue, 2001, 23, 903-910.	5.7	66
10	A survey on multiaxial fatigue damage parameters under nonâ€proportional loadings. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 1323-1342.	3.4	40
11	Proportional/nonproportional constant/variable amplitude multiaxial notch fatigue: cyclic plasticity, nonâ€zero mean stresses, and critical distance/plane. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 1849-1873.	3.4	35
12	A notch critical plane approach of multiaxial fatigue life prediction for metallic notched specimens. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 854-870.	3.4	30
13	An improved multiaxial high-cycle fatigue criterion based on critical plane approach. Fatigue and Fracture of Engineering Materials and Structures, 2011, 34, 337-344.	3.4	29
14	Non-propagating cracks and high-cycle fatigue failures in sharply notched specimens under in-phase Mode I and II loading. Engineering Failure Analysis, 2007, 14, 861-876.	4.0	24
15	A novel non-ablative thermal protection system with combined spike and opposing jet concept. Acta Astronautica, 2019, 159, 41-48.	3.2	19
16	Prediction of fatigue damage region with the use of the notch critical plane approach for crack initiation and propagation. International Journal of Fatigue, 2020, 135, 105533.	5.7	19
17	The effect of porosity size on the high cycle fatigue life of nickel-based single crystal superalloy at 980ÂÂ°C. International Journal of Fatigue, 2021, 147, 106191.	5.7	19
18	Estimating Lifetime of Notched Components Subjected to Variable Amplitude Fatigue Loading According to the Elastoplastic Theory of Critical Distances. Journal of Engineering Materials and Technology, Transactions of the ASME, 2015, 137, .	1.4	18

#	Article	IF	Citations
19	Numerical investigation on drag and heat reduction mechanism of combined spike and rear opposing jet configuration. Acta Astronautica, 2019, 155, 179-190.	3.2	16
20	A damage model based on the critical plane to estimate fatigue life under multi-axial random loading. International Journal of Fatigue, 2019, 129, 104729.	5.7	16
21	Prediction methods of fatigue critical point for notched components under multiaxial fatigue loading. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 2782-2793.	3.4	15
22	Effect of misorientation on the fatigue life of nickel-base single crystal superalloy DD5 at 980ÂÂ°C. International Journal of Fatigue, 2021, 153, 106479.	5.7	15
23	An improved critical plane and cycle counting method to assess damage under variable amplitude multiaxial fatigue loading. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 2024-2039.	3.4	13
24	A topologized resolved shear stress method for the life prediction of nickel-base single crystal superalloys. Theoretical and Applied Fracture Mechanics, 2020, 108, 102624.	4.7	13
25	Heat reduction mechanism of hypersonic spiked blunt body with installation angle at large angle of attack. Acta Astronautica, 2019, 164, 268-276.	3.2	12
26	A survey on fatigue life analysis approaches for metallic notched components under multi-axial loading. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2019, 233, 3870-3890.	1.3	11
27	A natural frequency degradation model for very high cycle fatigue of woven fiber reinforced composite. International Journal of Fatigue, 2020, 134, 105398.	5.7	11
28	Fatigue of composite honeycomb sandwich panels under random vibration load. Composite Structures, 2022, 286, 115296.	5.8	11
29	A bi-directional damage model for matrix cracking evolution in composite laminates under fatigue loadings. International Journal of Fatigue, 2020, 134, 105417.	5.7	10
30	A multi-area fatigue damage model of composite honeycomb sandwich panels under three-point bending load. Composite Structures, 2021, 261, 113603.	5.8	10
31	Analysis of Fatigue Life of PMMA at Different Frequencies Based on a New Damage Mechanics Model. Mathematical Problems in Engineering, 2014, 2014, 1-8.	1.1	9
32	Fatigue life evaluation of tensionâ€compression asymmetric material using local stressâ€“strain method. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1994-2005.	3.4	9
33	A fatigue life prediction method distinguishing fracture modes for Ni-based single crystal superalloys considering porosity defect. Theoretical and Applied Fracture Mechanics, 2021, 112, 102883.	4.7	9
34	Coupled fluid-thermal investigation on non-ablative thermal protection system with spiked body and opposing jet combined configuration. Chinese Journal of Aeronautics, 2019, 32, 1390-1402.	5.3	8
35	Compressive fatigue response and reliability analysis of thermoplastic composite with lowâ€velocity impact damage. Polymer Composites, 2021, 42, 5678-5690.	4.6	7
36	A concurrent subspace collaborative optimization architecture to structural synthetical optimization design. Structural and Multidisciplinary Optimization, 2016, 53, 1197-1207.	3.5	6

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37	Critical energy release rate for facesheet/core delamination of sandwich panels. Engineering Fracture Mechanics, 2018, 204, 361-368.	4.3	6
38	A sensitivity-based coordination method for optimization of product families. Engineering Optimization, 2016, 48, 1145-1163.	2.6	5
39	Metamodel-based optimization of the bolted connection of a wing spar considering fatigue resistance. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2016, 230, 805-814.	1.3	5
40	The effect of porosity size and oxidation on the HCF property of nickel-based single crystal superalloy at 980 â„ƒ. Theoretical and Applied Fracture Mechanics, 2022, 120, 103423.	4.7	5
41	Extension of concurrent subspace optimization to structural optimization of product families. Structural and Multidisciplinary Optimization, 2015, 52, 281-291.	3.5	4
42	A multidirectional damage model for fiber-reinforced plastic laminates under static load. Journal of Composite Materials, 2020, 54, 153-166.	2.4	4
43	Assessing variable amplitude multiaxial fatigue lifetime of notched components based on the notch critical plane approach. International Journal of Fatigue, 2021, 143, 105991.	5.7	3
44	Orientation-dependent low cycle fatigue performance of nickel-base single crystal superalloy at intermediate temperature range. Materials Today Communications, 2021, 26, 101836.	1.9	3
45	Residual stiffness characterization of FRP laminates under random block spectrum. Polymer Testing, 2021, 95, 107101.	4.8	3
46	Compressive fatigue behavior of lowâ€velocity impacted thermoplastic composite laminate. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 3289-3300.	3.4	3
47	On the Shear Stress Parameter of Thin-walled Tubular Specimens under Torsional Loading. Procedia Engineering, 2014, 74, 191-198.	1.2	2
48	An improved sensitivity-based coordination method using optimum sensitivity and its application to structural optimization of an unmanned aerial vehicle family. Engineering Optimization, 2021, 53, 425-439.	2.6	2
49	A distribution model of ultra-high cycle fatigue property based on crack density for braided CFRP. Composite Structures, 2021, 256, 113037.	5.8	2
50	On the Effective Elastic Properties of SiC/Al Metal Matrix Composite within an Intermingled Fractal Units Model. Physics of Metals and Metallography, 2021, 122, 1409-1418.	1.0	2
51	Investigation on dynamic behaviors of thermal protection system using a two degree-of-freedom nonlinear theoretical method. Acta Astronautica, 2018, 151, 828-835.	3.2	1
52	A Macro-Meso Correlation Model for Numerical Simulation of CFRP Tensile Notched Strength. Mathematical Problems in Engineering, 2020, 2020, 1-14.	1.1	1
53	A system sensitivity analysis-based parallel method for optimization of product platform. Engineering Optimization, 0, , 1-19.	2.6	0