

# Amin Farrokhhabadi

## List of Publications by Year in descending order

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76  
papers

1,163  
citations

361413

20  
h-index

526287

27  
g-index

76  
all docs

76  
docs citations

76  
times ranked

686  
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of the energy absorption capacity of foam-filled 3D-printed glass fiber reinforced thermoplastic auxetic honeycomb structures. <i>Mechanics of Advanced Materials and Structures</i> , 2023, 30, 758-769.	2.6	24
2	Micromechanical investigation of cross-ply carbon composite laminates with glass microtubes using CZM and XFEM. <i>Mechanics of Advanced Materials and Structures</i> , 2022, 29, 5624-5636.	2.6	9
3	Design and characterization of an orthotropic accordion cellular honeycomb as one-dimensional morphing structures with enhanced properties. <i>Journal of Sandwich Structures and Materials</i> , 2022, 24, 1726-1745.	3.5	7
4	Propose a generic framework for probabilistic prediction of the onset and growth of matrix cracking induced delamination in composite laminates. <i>Engineering Fracture Mechanics</i> , 2022, 261, 108262.	4.3	2
5	Introducing the new lattice structure based on the representative element double octagonal bipyramid. <i>Aerospace Science and Technology</i> , 2022, 121, 107383.	4.8	15
6	Finite element reliability analysis of edge delamination onset due to interlaminar stresses in composite laminates. <i>Composite Structures</i> , 2022, 288, 115410.	5.8	6
7	Assessment of fiber-reinforcement and foam-filling in the directional energy absorption performance of a 3D printed accordion cellular structure. <i>Composite Structures</i> , 2022, 297, 115945.	5.8	12
8	Investigation of the equivalent material properties and failure stress of the re-entrant composite lattice structures using an analytical model. <i>Composite Structures</i> , 2021, 257, 113161.	5.8	19
9	Optimum power of a nonlinear piezomagnetoelastic energy harvester with using multidisciplinary optimization algorithms. <i>Journal of Intelligent Material Systems and Structures</i> , 2021, 32, 889-903.	2.5	1
10	Investigation of novel multi-layer sandwich panels under quasi-static indentation loading using experimental and numerical analyses. <i>Thin-Walled Structures</i> , 2021, 160, 107326.	5.3	27
11	In situ strength analysis of cross-ply composite laminates containing defects and interleaved woven layer using a computational micromechanics approach. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 1225-1240.	3.4	9
12	Cumulative acoustic emission energy for damage detection in composites reinforced by carbon fibers within low-cycle fatigue regime at various displacement amplitudes and rates. <i>Polymers and Polymer Composites</i> , 2021, 29, S36-S48.	1.9	3
13	The Effect of Core Shape on the Bending Response of Sandwich Panels with Filled and Unfilled Sine and Square Corrugated Cores. <i>Journal of Failure Analysis and Prevention</i> , 2021, 21, 537-546.	0.9	8
14	Assessment of delamination growth due to matrix cracking in hybrid Glass-Kevlar composite laminates using experimental, numerical and analytical methods. <i>Engineering Fracture Mechanics</i> , 2021, 247, 107691.	4.3	7
15	Anticipating the induced delamination formation in composite laminates subjected to bending loads. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2021, 44, 3108-3120.	3.4	2
16	The effect of staggered matrix crack induced delamination growth on the mechanical properties of cross-ply laminates. <i>Composite Structures</i> , 2021, 272, 114196.	5.8	5
17	Evaluation of the equivalent mechanical properties in a novel composite cruciform honeycomb using analytical and numerical methods. <i>Composite Structures</i> , 2021, 275, 114410.	5.8	18
18	Fatigue Performance Analysis of GRE Composite Pipes by Conducting Tension-Tension Tests on the Rings Cut from the Pipe. <i>Journal of Testing and Evaluation</i> , 2021, 49, 2767-2778.	0.7	4

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19	Experimental and analytical studies of mechanical properties of additively manufactured lattice structure based on octagonal bipyramid cubic unit cell. <i>Additive Manufacturing</i> , 2021, 48, 102403.	3.0	17
20	A failure criterion to predict the onset of matrix cracking induced delamination in general composite laminates. <i>Composite Structures</i> , 2020, 235, 111564.	5.8	6
21	Experimental and numerical analysis of novel multi-layer sandwich panels under three point bending load. <i>Composite Structures</i> , 2020, 250, 112631.	5.8	50
22	Investigation of debonding growth between composite skins and corrugated foam-composite core in sandwich panels under bending loading. <i>Engineering Fracture Mechanics</i> , 2020, 230, 106987.	4.3	22
23	Prediction of debonding growth in two-dimensional RVEs using an extended interface element based on continuum damage mechanics concept. <i>Composite Structures</i> , 2020, 238, 111981.	5.8	9
24	Numerical investigation of matrix cracking propagation in cross-ply laminated composites subjected to three-point bending load using concurrent multiscale model. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 1159-1169.	3.4	18
25	Determining of a closed-form relation for evolution of crack density and induced delamination in off-axis composite laminates under uniaxial loading condition. <i>Mechanics of Advanced Materials and Structures</i> , 2020, 27, 859-868.	2.6	3
26	Dynamic pull-in of thermal cantilever nanoswitches subjected to dispersion and axial forces using nonlocal elasticity theory. <i>Microsystem Technologies</i> , 2019, 25, 19-30.	2.0	17
27	A thermosensitive electromechanical model for detecting biological particles. <i>Scientific Reports</i> , 2019, 9, 11706.	3.3	9
28	Reliability analysis of metal-composite adhesive joints under debonding modes I, II, and I/II using the results of experimental and FEM analyses. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2019, 42, 2644-2662.	3.4	20
29	Nonlinear stability analysis of piezoelectric microstructures. <i>International Journal of Mechanical Sciences</i> , 2019, 160, 200-208.	6.7	24
30	Predicting the matrix cracking formation in symmetric composite laminates subjected to bending loads. <i>Composite Structures</i> , 2019, 223, 110945.	5.8	10
31	Modeling, analysis, and control of MFC sandwiched laminate panel flutter with general layups and arbitrary boundary conditions. <i>Composite Structures</i> , 2019, 223, 110940.	5.8	14
32	A solution method based on Lagrange multipliers and Legendre polynomial series for free vibration analysis of laminated plates sandwiched by two MFC layers. <i>Journal of Sound and Vibration</i> , 2019, 447, 42-60.	3.9	17
33	Development of an integrated micro macro model for anticipating matrix cracking evolution and fiber breakage in the laminated composite containing an open hole. <i>Engineering Fracture Mechanics</i> , 2019, 211, 161-179.	4.3	8
34	Characterization of compressive behavior of PVC foam infilled composite sandwich panels with different corrugated core shapes. <i>Thin-Walled Structures</i> , 2019, 135, 160-172.	5.3	62
35	Predicting the debonding formation and induced matrix cracking evolution in open-hole composite laminates using a semi-consequence micro-macro model. <i>Composite Structures</i> , 2019, 210, 274-293.	5.8	8
36	Experimental and numerical investigation of skin/lattice stiffener debonding growth in composite panels under bending loading. <i>Engineering Fracture Mechanics</i> , 2018, 190, 471-490.	4.3	8

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37	A variational approach for predicting initiation of matrix cracking and induced delamination in symmetric composite laminates under in-plane loading. <i>Science and Engineering of Composite Materials</i> , 2018, 25, 855-868.	1.4	2
38	Failure Analysis of Glass-Reinforced Epoxy Pipes Under Internal Hydrostatic Pressure: A Comparison With the Split Disk Test Method. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2018, 140, .	0.6	1
39	A new semi-analytical solution method for free vibration analysis of composite rectangular plates with general edge constraints coupled with single piezoelectric layer. <i>Journal of Intelligent Material Systems and Structures</i> , 2018, 29, 3873-3889.	2.5	5
40	Failure Analysis of ( $\hat{\Delta}\hat{\Delta}\%55\hat{\Delta}\hat{\Delta}$ ) <sup>9</sup> Filament-Wound GRE Pipes Using Explicit Finite Element Method: A Comparison with the Experimental Method. <i>Journal of Failure Analysis and Prevention</i> , 2018, 18, 1526-1533.	0.9	3
41	The effect of the arrangement of corrugated composite on the R-curve of the sandwich structures with hybrid corrugated/foam core under mode I loading. <i>Theoretical and Applied Fracture Mechanics</i> , 2018, 96, 326-333.	4.7	12
42	Development a refined numerical model for evaluating the matrix cracking and induced delamination formation in cross-ply composite laminates. <i>Composite Structures</i> , 2018, 200, 12-24.	5.8	25
43	Prediction of induced delamination development in $[\hat{I}/90]_s$ composite laminates using a computational analytical approach. <i>Composite Structures</i> , 2018, 203, 903-916.	5.8	6
44	An energy based approach for reliability analysis of delamination growth under mode I, mode II and mixed mode I/II loading in composite laminates. <i>International Journal of Mechanical Sciences</i> , 2018, 145, 287-298.	6.7	17
45	A numerical method to evaluate the material properties degradation in composite RVEs due to fiber-matrix debonding and induced matrix cracking. <i>Finite Elements in Analysis and Design</i> , 2018, 146, 84-95.	3.2	41
46	Pull-in instability of double clamped microbeams under dispersion forces in the presence of thermal and residual stress effects using nonlocal elasticity theory. <i>Microsystem Technologies</i> , 2017, 23, 839-848.	2.0	30
47	A generalized plane-strain crack density-based model for evaluating the finite fracture toughness of composite laminates. <i>Mechanics of Advanced Materials and Structures</i> , 2017, 24, 131-141.	2.6	11
48	Micromechanical prediction of damage due to transverse ply cracking under fatigue loading in composite laminates. <i>Journal of Reinforced Plastics and Composites</i> , 2017, 36, 377-395.	3.1	23
49	Size-dependent dynamic instability of double-clamped nanobeams under dispersion forces in the presence of thermal stress effects. <i>Microsystem Technologies</i> , 2017, 23, 3685-3699.	2.0	5
50	Size-dependent dynamic analysis of rectangular nanoplates in the presence of electrostatic, Casimir and thermal forces. <i>Applied Mathematical Modelling</i> , 2017, 50, 604-620.	4.2	8
51	A computational continuum damage mechanics model for predicting transverse cracking and splitting evolution in open hole cross-ply composite laminates. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2017, 40, 375-390.	3.4	9
52	Analytical solution of piezoelectric energy harvester patch for various thin multilayer composite beams. <i>Composite Structures</i> , 2016, 154, 694-706.	5.8	39
53	The influence of dispersion forces on the size-dependent pull-in instability of general cantilever nano-beams containing geometrical non-linearity. <i>International Journal of Mechanical Sciences</i> , 2016, 119, 114-124.	6.7	28
54	EFFECT OF SURFACE LAYER ON ELECTROMECHANICAL STABILITY OF TWEEZERS AND CANTILEVERS FABRICATED FROM CONDUCTIVE CYLINDRICAL NANOWIRES. <i>Surface Review and Letters</i> , 2016, 23, 1550101.	1.1	7

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55	Failure analysis of ( $\pm 55^\circ$ ) <sub>9</sub> filament-wound GRE pipes using acoustic emission technique. <i>Engineering Failure Analysis</i> , 2016, 62, 178-187.	4.0	17
56	An improved model for the cantilever NEMS actuator including the surface energy, fringing field and Casimir effects. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2016, 75, 202-209.	2.7	20
57	A simplified micromechanics model for predicting the stiffness degradation in symmetric composite laminates. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2015, 38, 1334-1346.	3.4	13
58	A theoretical model for investigating the effect of vacuum fluctuations on the electromechanical stability of nanotweezers. <i>Indian Journal of Physics</i> , 2015, 89, 599-609.	1.8	21
59	The influence of the surface energy on the instability behavior of NEMS structures in presence of intermolecular attractions. <i>International Journal of Mechanical Sciences</i> , 2015, 101-102, 437-448.	6.7	24
60	Modeling the influence of the Casimir force on the pull-in instability of nanowire-fabricated nanotweezers. <i>International Journal of Modern Physics B</i> , 2015, 29, 1450245.	2.0	15
61	Theoretical modeling of the effect of Casimir attraction on the electrostatic instability of nanowire-fabricated actuators. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2015, 68, 149-158.	2.7	15
62	Modeling the size dependent instability of NEMS sensor/actuator made of nano-wire with circular cross-section. <i>Microsystem Technologies</i> , 2015, 21, 355-364.	2.0	24
63	Modeling the instability of CNT tweezers using a continuum model. <i>Microsystem Technologies</i> , 2014, 20, 291-302.	2.0	30
64	Effects of size-dependent elasticity on stability of nanotweezers. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2014, 35, 1573-1590.	3.6	16
65	Casimir force-induced instability in freestanding nanotweezers and nanoactuators made of cylindrical nanowires. <i>International Journal of Modern Physics B</i> , 2014, 28, 1450129.	2.0	13
66	Theoretical modeling of the Casimir force-induced instability in freestanding nanowires with circular cross-section. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2014, 63, 67-80.	2.7	35
67	Modeling the static response and pull-in instability of CNT nanotweezers under the Coulomb and van der Waals attractions. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2013, 53, 137-145.	2.7	33
68	Development of a Damage Analysis Method in Laminated Composites Using Finite Fracture Toughness of Single Lamina. <i>Mechanics of Advanced Materials and Structures</i> , 2013, 20, 177-188.	2.6	20
69	Consideration of concurrent transverse cracking and induced delamination propagation using a generalized micro-meso approach and experimental validation. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2012, 35, 885-901.	3.4	20
70	Implementation of a micro-meso approach for progressive damage analysis of composite laminates. <i>Structural Engineering and Mechanics</i> , 2012, 43, 657-678.	1.0	5
71	A generalized micromechanical approach for the analysis of transverse crack and induced delamination in composite laminates. <i>Composite Structures</i> , 2011, 93, 443-455.	5.8	31
72	Analysis of damage events in quasi-isotropic laminates using a generalized micromechanics approach. <i>Procedia Engineering</i> , 2011, 10, 236-241.	1.2	1

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73	Damage analysis of laminated composites using a new coupled micro-meso approach. Fatigue and Fracture of Engineering Materials and Structures, 2010, 33, 420-435.	3.4	25
74	Transverse crack density evolution in a single orthotropic lamina under multi-axial stresses using analytical method. Procedia Engineering, 2009, 1, 109-112.	1.2	4
75	Progressive Damage Analyses of Composite Laminates Exhibiting Free Edge Effects Using a New Micro-Meso Approach. Key Engineering Materials, 0, 471-472, 263-267.	0.4	0
76	A New Self Healing Method in Composite Laminates Using the Hollow Glass Fiber. Key Engineering Materials, 0, 471-472, 548-551.	0.4	9