Soheil Mohammadi

List of Publications by Year
in descending order

131	3,420	159585 30	168389 53
papers	citations	h-index	g-index

139	139	139	2511
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Extended isogeometric analysis for simulation of stationary and propagating cracks. International Journal for Numerical Methods in Engineering, 2012, 89, 1069-1101.	2.8	199
2	T-spline based XIGA for fracture analysis of orthotropic media. Computers and Structures, 2015, 147, 138-146.	4.4	191
3	Developing new enrichment functions for crack simulation in orthotropic media by the extended finite element method. International Journal for Numerical Methods in Engineering, 2007, 69, 2150-2172.	2.8	164
4	Experimental and numerical investigations of low velocity impact behavior of high-performance fiber-reinforced cement based composite. International Journal of Impact Engineering, 2010, 37, 220-229.	5.0	128
5	XFEM fracture analysis of orthotropic functionally graded materials. Composites Part B: Engineering, 2013, 44, 8-25.	12.0	117
6	Crack analysis in orthotropic media using the extended finite element method. Thin-Walled Structures, 2006, 44, 1031-1038.	5.3	112
7	Analytical derivation of tortuosity and permeability of monosized spheres: A volume averaging approach. Physical Review E, 2011, 83, 026312.	2.1	112
8	Modeling crack in orthotropic media using a coupled finite element and partition of unity methods. Finite Elements in Analysis and Design, 2006, 42, 1165-1175.	3.2	94
9	Dynamic crack propagation analysis of orthotropic media by the extended finite element method. International Journal of Fracture, 2010, 161, 21-39.	2.2	86
10	Delamination analysis of composites by new orthotropic bimaterial extended finite element method. International Journal for Numerical Methods in Engineering, 2011, 86, 1507-1543.	2.8	83
11	Thermo-mechanical XFEM crack propagation analysis of functionally graded materials. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 561, 285-302.	5.6	76
12	Orthotropic enriched element free Galerkin method for fracture analysis of composites. Engineering Fracture Mechanics, 2011, 78, 1906-1927.	4.3	73
13	Numerical analysis of rock fracturing by gas pressure using the extended finite element method. Petroleum Science, 2015, 12, 304-315.	4.9	71
14	Dynamic analysis of fixed cracks in composites by the extended finite element method. Engineering Fracture Mechanics, 2010, 77, 3373-3393.	4.3	70
15	An XFEM multiscale approach for fracture analysis of carbon nanotube reinforced concrete. Theoretical and Applied Fracture Mechanics, 2014, 72, 64-75.	4.7	70
16	XFEM analysis of fiber bridging in mixed-mode crack propagation in composites. Composite Structures, 2015, 125, 314-327.	5.8	68
17	Molecular dynamics simulation of the nonlinear behavior of the CNT-reinforced calcium silicate hydrate (Câ€“Sâ€“H) composite. Composites Part A: Applied Science and Manufacturing, 2016, 82, 78-87.	7.6	66
18	Numerical simulation of particle breakage of angular particles using combined DEM and FEM. Powder Technology, 2011, 205, 15-29.	4.2	65

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19	A high performance supercapacitor based on decoration of MoS₂/reduced graphene oxide with NiO nanoparticles. RSC Advances, 2017, 7, 52772-52781.	3.6	65
20	Fracture analysis of composites by time independent moving-crack orthotropic XFEM. International Journal of Mechanical Sciences, 2012, 54, 20-37.	6.7	63
21	Understanding the Immunologic Characteristics of Neurologic Manifestations of SARS-CoV-2 and Potential Immunological Mechanisms. Molecular Neurobiology, 2020, 57, 5263-5275.	4.0	61
22	XFEM fracture analysis of shells: The effect of crack tip enrichments. Computational Materials Science, 2011, 50, 2793-2813.	3.0	51
23	Effect of defects on the local shell buckling and post-buckling behavior of single and multi-walled carbon nanotubes. Computational Materials Science, 2013, 79, 736-744.	3.0	50
24	XFEM buckling analysis of cracked composite plates. Composite Structures, 2015, 131, 333-343.	5.8	43
25	Multiscale dynamic fracture behavior of the carbon nanotube reinforced concrete under impact loading. International Journal of Impact Engineering, 2016, 87, 55-64.	5.0	40
26	Analysis of chloride diffusion in concrete structures for prediction of initiation time of corrosion using a new meshless approach. Construction and Building Materials, 2008, 22, 546-556.	7.2	39
27	An extended element free Galerkin method for fracture analysis of functionally graded materials. Mechanics of Advanced Materials and Structures, 2016, 23, 513-528.	2.6	37
28	Experimental and numerical investigation into the methods of determination of mode I static fracture toughness of rocks. Theoretical and Applied Fracture Mechanics, 2019, 100, 154-170.	4.7	35
29	A New Approach for Numerical Modeling of Hydraulic Fracture Propagation in Naturally Fractured Reservoirs. , 2012, , .		33
30	Eigenvalue buckling analysis of cracked functionally graded cylindrical shells in the framework of the extended finite element method. Composite Structures, 2017, 159, 548-566.	5.8	32
31	2D simulation of breakage of angular particles using combined DEM and XFEM. Powder Technology, 2018, 336, 282-297.	4.2	32
32	Micromechanics of breakage in sharp-edge particles using combined DEM and FEM. Particuology, 2008, 6, 347-361.	3.6	30
33	Plane-strain discrete dislocation plasticity incorporating anisotropic elasticity. International Journal of Solids and Structures, 2011, 48, 374-387.	2.7	29
34	Mixed mode fracture analysis of adiabatic cracks in homogeneous and non-homogeneous materials in the framework of partition of unity and the path-independent interaction integral. Engineering Fracture Mechanics, 2014, 131, 100-127.	4.3	29
35	A hierarchical nano to macro multiscale analysis of monotonic behavior of concrete columns made of CNT-reinforced cement composite. Construction and Building Materials, 2018, 175, 134-143.	7.2	28
36	Validation of dynamic block displacement analysis and modification of edge-to-edge contact constraints in 3-D DDA. International Journal of Rock Mechanics and Minings Sciences, 2009, 46, 1223-1234.	5.8	27

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37	An extended finite element framework for vibration analysis of cracked FGM shells. Composite Structures, 2017, 180, 298-315.	5.8	23
38	Metabolic profile in patients with narcolepsy: a systematic review and meta-analysis. Sleep Medicine, 2021, 81, 268-284.	1.6	23
39	An efficient computational technique for modeling dislocationâ€“precipitate interactions within dislocation dynamics. Computational Materials Science, 2016, 122, 281-287.	3.0	22
40	Numerical study of thermo-mechanical coupling effects on crack tip fields of mixed-mode fracture in pseudoelastic shape memory alloys. International Journal of Solids and Structures, 2016, 81, 160-178.	2.7	22
41	Analysis of transpression within contractional fault steps using finite-element method. Journal of Structural Geology, 2017, 96, 1-20.	2.3	21
42	A finite strain integral-type anisotropic damage model for fiber-reinforced materials: Application in soft biological tissues. Computer Methods in Applied Mechanics and Engineering, 2017, 322, 262-295.	6.6	21
43	Micromechanical study of particle breakage in 2D angular rockfill media using combined DEM and XFEM. Granular Matter, 2019, 21, 1.	2.2	21
44	XFEM fracture analysis of cracked pipeline with and without FRP composite repairs. Mechanics of Advanced Materials and Structures, 2020, 27, 1888-1899.	2.6	21
45	A two-mesh coupled gas flowâ€“solid interaction model for 2D blast analysis in fractured media. Finite Elements in Analysis and Design, 2012, 50, 48-69.	3.2	20
46	Analysis of cohesive cracking in saturated porous media using an extrinsically enriched EFG method. Computers and Geotechnics, 2015, 63, 183-198.	4.7	20
47	3D hierarchical multiscale analysis of heterogeneous SMA based materials. International Journal of Solids and Structures, 2017, 118-119, 24-40.	2.7	20
48	Fracture analysis of FRP-reinforced beams by orthotropic XFEM. Journal of Composite Materials, 2012, 46, 1367-1389.	2.4	19
49	Strain-rate sensitivity of unstable localized phase transformation phenomenon in shape memory alloys using a non-local model. International Journal of Solids and Structures, 2015, 63, 167-183.	2.7	19
50	XFEMâ€“dislocation dynamics multi-scale modeling of plasticity and fracture. Computational Materials Science, 2015, 104, 98-107.	3.0	19
51	An adapting cohesive approach for crack-healing analysis in SMA fiber-reinforced composites. Computer Methods in Applied Mechanics and Engineering, 2019, 349, 550-575.	6.6	19
52	New point-to-face contact algorithm for 3-D contact problems using the augmented Lagrangian method in 3-D DDA. Geomechanics and Geoengineering, 2009, 4, 221-236.	1.8	18
53	Large deflection analysis of flexible plates by the meshless finite point method. Thin-Walled Structures, 2010, 48, 200-214.	5.3	18
54	Deformation mechanics in inclined, brittle-ductile transpression zones: Insights from 3D finite element modelling. Journal of Structural Geology, 2020, 137, 104082.	2.3	17

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55	A dislocation-dynamics-based derivation of the Frankâ€“Read source characteristics for discrete dislocation plasticity. Modelling and Simulation in Materials Science and Engineering, 2008, 16, 075002.	2.0	16
56	Finite strain fracture analysis using the extended finite element method with new set of enrichment functions. International Journal for Numerical Methods in Engineering, 2015, 102, 1316-1351.	2.8	16
57	Thermo-mechanically coupled fracture analysis of shape memory alloys using the extended finite element method. Smart Materials and Structures, 2015, 24, 045031.	3.5	16
58	Associations of refractive errors and retinal changes measured by optical coherence tomography: A systematic review and meta-analysis. Survey of Ophthalmology, 2022, 67, 591-607.	4.0	16
59	Mechanical evolution of transpression zones affected by fault interactions: Insights from 3D elasto-plastic finite element models. Journal of Structural Geology, 2018, 106, 19-40.	2.3	15
60	Efficacy of Topical Enalapril in Treatment of Hypertrophic Scars. World Journal of Plastic Surgery, 2018, 7, 326-331.	0.6	14
61	Cytokines in narcolepsy: A systematic review and meta-analysis. Cytokine, 2020, 131, 155103.	3.2	14
62	Numerical simulation of direct shear test on granular materials composed of breakable angular particles: A DEM-XFEM approach. Powder Technology, 2021, 391, 450-466.	4.2	14
63	Numerical analysis of crack tip fields in interface fracture of SMA/elastic bi-materials. International Journal of Fracture, 2015, 195, 39-52.	2.2	13
64	Contact based delamination and fracture analysis of composites. Thin-Walled Structures, 2002, 40, 595-609.	5.3	12
65	Equilibrium on line method (ELM) for imposition of Neumann boundary conditions in the finite point method (FPM). International Journal for Numerical Methods in Engineering, 2007, 69, 60-86.	2.8	12
66	Non-uniform isentropic gas flow analysis of explosion in fractured solid media. Finite Elements in Analysis and Design, 2007, 43, 478-493.	3.2	12
67	Modeling delamination in composite laminates using XFEM by new orthotropic enrichment functions. IOP Conference Series: Materials Science and Engineering, 2010, 10, 012240.	0.6	12
68	Strong tangential discontinuity modeling of shear bands using the extended finite element method. Computational Mechanics, 2013, 52, 1023-1038.	4.0	12
69	Lateral Spreading Forces on Bridge Piers and Pile Caps in Laterally Spreading Soil: Effect of Angle of Incidence. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2010, 136, 1589-1599.	3.0	11
70	Nanoindentation simulation of coated aluminum thin film using quasicontinuum method. Computational Materials Science, 2016, 111, 12-22.	3.0	11
71	Weak discontinuity in porous media: an enriched EFG method for fully coupled layered porous media. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 1792-1822.	3.3	10
72	Dynamic adaptive finite element analysis of acoustic wave propagation due to underwater explosion for fluid-structure interaction problems. Journal of Marine Science and Application, 2015, 14, 302-315.	1.7	10

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73	Transient analysis of stationary interface cracks in orthotropic bi-materials using oscillatory crack tip enrichments. Composite Structures, 2016, 142, 200-214.	5.8	10
74	Stable discontinuous spaceâ€“time analysis of dynamic interface crack growth in orthotropic bi-materials using oscillatory crack tip enrichment functions. International Journal of Mechanical Sciences, 2018, 140, 557-580.	6.7	10
75	Untangling narcolepsy and diabetes: Pathomechanisms with eyes on therapeutic options. Brain Research, 2019, 1718, 212-222.	2.2	10
76	A coupled gasâ€“solid interaction model for FE/DE simulation of explosion. Finite Elements in Analysis and Design, 2005, 41, 1289-1308.	3.2	9
77	Brain-derived neurotrophic factor in patients with epilepsy: A systematic review and meta-analysis. Epilepsy Research, 2021, 178, 106794.	1.6	9
78	Evaluation of T-stress in stationary and propagating adiabatic cracks in FGM subjected to thermo-mechanical loading. Mechanics of Advanced Materials and Structures, 2023, 30, 2284-2303.	2.6	9
79	How particle shape affects the flow through granular materials. Physical Review E, 2012, 85, 036310.	2.1	8
80	A local PUFEM modeling of stress singularity in sliding contact with minimal enrichment for direct evaluation of generalized stress intensity factors. Engineering Fracture Mechanics, 2013, 105, 16-40.	4.3	8
81	Maximum entropy based finite element analysis of porous media. Frontiers of Structural and Civil Engineering, 2019, 13, 364-379.	2.9	7
82	3D Multi Delamination/Fracture Analysis of Composites Subjected to Impact Loadings. Journal of Composite Materials, 2007, 41, 1459-1475.	2.4	6
83	UCC: UML profile to cloud computing modeling: Using stereotypes and tag values. , 2014, , .		6
84	Micro-based enriched multiscale homogenization method for analysis of heterogeneous materials. International Journal of Solids and Structures, 2017, 125, 22-42.	2.7	6
85	Choroidal thickness in eyes of migraine patients measured using spectral domain-optical coherence tomography: A meta-analysis. Survey of Ophthalmology, 2023, 68, 67-77.	4.0	6
86	3D Adaptive Multi Fracture Analysis of Composites. Materials Science Forum, 2003, 440-441, 145-152.	0.3	5
87	A field smoothing stabilization of particle methods in elastodynamics. Finite Elements in Analysis and Design, 2008, 44, 564-579.	3.2	5
88	The variable node multiscale approach: Coupling the atomistic and continuum scales. Computational Materials Science, 2019, 160, 256-274.	3.0	5
89	Performance of the anisotropic Morley shell element in dynamic large deformation analysis. Communications in Numerical Methods in Engineering, 1999, 15, 445-455.	1.3	4
90	Analysis of fractured rock and gas flow interaction in explosion simulations. Combustion, Explosion and Shock Waves, 2007, 43, 482-491.	0.8	4

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91	Unsteady fluidâ€“solid interaction by a kernelâ€based particle method. International Journal for Numerical Methods in Biomedical Engineering, 2010, 26, 1596-1603.	2.1	4
92	A STABILIZED PARTICLE METHOD FOR LARGE DEFORMATION DYNAMIC ANALYSIS OF STRUCTURES. International Journal of Structural Stability and Dynamics, 2012, 12, 1250026.	2.4	4
93	Hand aesthetic, an annoying problem for the burn patients, but commonly overlooked issue by the burn surgeons. Burns, 2017, 43, 1130-1131.	1.9	4
94	Early excision and grafting (EE&G): Opportunity or threat?. Burns, 2017, 43, 1358-1359.	1.9	4
95	Quasicontinuum multiscale modeling of the effect of rough surface on nanoindentation behavior. Meccanica, 2019, 54, 411-427.	2.0	4
96	A brittle to ductile phase transition fracture analysis of shape memory polymers. Engineering Fracture Mechanics, 2020, 224, 106751.	4.3	4
97	Phase evolution based thermomechanical crack closure mechanism of shape memory polymers. Mechanics of Materials, 2021, 160, 103998.	3.2	4
98	Extended Finite Element Method for Isotropic Problems. , 0, , 61-116.		3
99	Analysis of shock wave reflection from fixed and moving boundaries using a stabilized particle method. Particuology, 2009, 7, 373-383.	3.6	3
100	An extended thermo-mechanically coupled algorithm for simulation of superelasticity and shape memory effect in shape memory alloys. Frontiers of Structural and Civil Engineering, 2015, 9, 466-477.	2.9	3
101	Delamination analysis in bimaterials consisting of shape memory alloy and elastoplastic layers. Composite Structures, 2019, 225, 111149.	5.8	3
102	Multiscale Polynomial-Based High-Order Central High Resolution Schemes. Journal of Scientific Computing, 2019, 80, 555-613.	2.3	3
103	Meshless equilibrium on line method (MELM) for linear elasticity. Structural Engineering and Mechanics, 2010, 35, 511-533.	1.0	3
104	The forgotten tract of vision in multiple sclerosis: vertical occipital fasciculus, its fiber properties, and visuospatial memory. Brain Structure and Function, 2022, 227, 1479-1490.	2.3	3
105	Spectral-domain OCT measurements in obesity: A systematic review and meta-analysis. PLoS ONE, 2022, 17, e0267495.	2.5	3
106	A Multiscale Finite Element Simulation of Human Aortic Heart Valve. Applied Mechanics and Materials, 0, 367, 275-279.	0.2	2
107	The foot, an important but less noticed burned area of the body. Burns, 2017, 43, 1137.	1.9	2
108	Evaluation of Patientsâ€™ Satisfaction and Functional Outcome of Dorsal Hand Unit Reconstruction in Burn Patients in Shiraz, Southern Iran. Journal of Burn Care and Research, 2018, 39, 572-579.	0.4	2

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109	Avoiding overzealous excision of superficial burn and full excision of deep areas are two equally important prerequisites for successful early excision and grafting (EE&G). Burns, 2018, 44, 230-231.	1.9	2
110	3D large strain hierarchical multiscale analysis of soft fiber-reinforced tissues: application to a degraded arterial wall. Engineering Computations, 2022, ahead-of-print, .	1.4	2
111	Adaptive Numerical Simulation of Machining Process Involving Chip Creation. Materials Science Forum, 2003, 440-441, 169-178.	0.3	1
112	Well Test Analysis of Naturally Fractured Reservoirs with Unsteady State Behavior Using Direct Synthesis Technique. Petroleum Science and Technology, 2009, 27, 263-278.	1.5	1
113	Analytical Solution for Isothermal Flow in a Shock Tube Containing Rigid Granular Material. Transport in Porous Media, 2012, 93, 13-27.	2.6	1
114	Recurrent nonhealing wound in old burn scar may be due to Heterotopic Ossification. Burns, 2017, 43, 1599-1601.	1.9	1
115	An important caution to tissue expander manufacturing companies: Burned tissues because of their inherent weakness need more delicate expanders to reduce complications. Burns, 2017, 43, 1596-1597.	1.9	1
116	Wavelet-based iterative data enhancement for implementation in purification of modal frequency for extremely noisy ambient vibration tests in Shiraz-Iran. Frontiers of Structural and Civil Engineering, 2020, 14, 446-472.	2.9	1
117	Orthotropic Enriched Extended Isogeometric Analysis for Fracture Analysis of Composites. , 0, , .		1
118	Fracture Mechanics, a Review. , 0, , 13-60.		0
119	XFEM for Orthotropic Problems. , 0, , 117-161.		0
120	XFEM for Cohesive Cracks. , 0, , 163-188.		0
121	New Frontiers. , 0, , 189-217.		0
122	XFEM Flow. , 0, , 219-234.		0
123	Experimental and Numerical Studies of Impact Behavior of Fiber Lightweight Aggregate Concrete. , 2008, , .		0
124	Development of Sustainable Water Supply Scheme in Reservoir Operation: Case Study. , 2009, , .		0
125	A STUDY ON THE EFFECT OF COLLAGEN FIBER ORIENTATION ON MECHANICAL RESPONSE OF SOFT BIOLOGICAL TISSUES. Jurnal Teknologi (Sciences and Engineering), 2015, 76, .	0.4	0
126	Chronic intermittent intra-abdominal hypertension and limitation of chest wall expansion: A possible cause of morbidity in extensive, unyielding trunk burn scarring. Burns, 2017, 43, 1605-1607.	1.9	0

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127	Surgical technique, an important factor in tissue expander exposure complications. Burns, 2017, 43, 1597-1598.	1.9	0
128	A Contact Based Method for 3D Delamination Analysis of Composites Subjected to Impact Loading. , 2001, , 691-696.		0
129	Post-Septoplasty Palatal Fistula in A Patient with Normal Palate: Case Report. World Journal of Plastic Surgery, 2018, 7, 382-384.	0.6	0
130	Absence of the Labiomental Groove: A Common but Preventable Unpleasant Aesthetic Problem of the Lower Lip-Chin Burn Reconstruction. World Journal of Plastic Surgery, 2017, 6, 393-395.	0.6	0
131	Extended Isogeometric Analysis of Plates with Curved Cracks. , 0, , .		0