Soheil Mohammadi

List of Publications by Citations

124 papers	2,484 citations	27 h-index	46 g-index
139 ext. papers	2,944 ext. citations	3.3 avg, IF	5.75 L-index

#	Paper	IF	Citations
124	T-spline based XIGA for fracture analysis of orthotropic media. *Computers and Structures*, **2015**, 147, 138-146	4.5	157
123	Extended isogeometric analysis for simulation of stationary and propagating cracks. *International Journal for Numerical Methods in Engineering*, **2012**, 89, 1069-1101	2.4	153
122	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	2.4	123
121	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	4	98
120	Crack analysis in orthotropic media using the extended finite element method. *Thin-Walled Structures*, **2006**, 44, 1031-1038	4.7	95
119	Analytical derivation of tortuosity and permeability of monosized spheres: a volume averaging approach. *Physical Review E*, **2011**, 83, 026312	2.4	87
118	XFEM fracture analysis of orthotropic functionally graded materials. *Composites Part B: Engineering*, **2013**, 44, 8-25	10	85
117	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	2.2	73
116	Delamination analysis of composites by new orthotropic bimaterial extended finite element method. *International Journal for Numerical Methods in Engineering*, **2011**, 86, 1507-1543	2.4	72
115	Dynamic crack propagation analysis of orthotropic media by the extended finite element method. *International Journal of Fracture*, **2010**, 161, 21-39	2.3	64
114	Thermo-mechanical XFEM crack propagation analysis of functionally graded materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 561, 285-302	5.3	63
113	An XFEM multiscale approach for fracture analysis of carbon nanotube reinforced concrete. *Theoretical and Applied Fracture Mechanics*, **2014**, 72, 64-75	3.7	53
112	Dynamic analysis of fixed cracks in composites by the extended finite element method. *Engineering Fracture Mechanics*, **2010**, 77, 3373-3393	4.2	53
111	Numerical simulation of particle breakage of angular particles using combined DEM and FEM. *Powder Technology*, **2011**, 205, 15-29	5.2	52
110	XFEM analysis of fiber bridging in mixed-mode crack propagation in composites. *Composite Structures*, **2015**, 125, 314-327	5.3	48
109	A high performance supercapacitor based on decoration of MoS2/reduced graphene oxide with NiO nanoparticles. *RSC Advances*, **2017**, 7, 52772-52781	3.7	47
108	Orthotropic enriched element free Galerkin method for fracture analysis of composites. *Engineering Fracture Mechanics*, **2011**, 78, 1906-1927	4.2	47

107	Molecular dynamics simulation of the nonlinear behavior of the CNT-reinforced calcium silicate hydrate (C□□H) composite. *Composites Part A: Applied Science and Manufacturing*, **2016**, 82, 78-87	8.4	44
106	Fracture analysis of composites by time independent moving-crack orthotropic XFEM. *International Journal of Mechanical Sciences*, **2012**, 54, 20-37	5.5	43
105	XFEM fracture analysis of shells: The effect of crack tip enrichments. *Computational Materials Science*, **2011**, 50, 2793-2813	3.2	43
104	Numerical analysis of rock fracturing by gas pressure using the extended finite element method. *Petroleum Science*, **2015**, 12, 304-315	4.4	41
103	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	3.2	37
102	Understanding the Immunologic Characteristics of Neurologic Manifestations of SARS-CoV-2 and Potential Immunological Mechanisms. *Molecular Neurobiology*, **2020**, 57, 5263-5275	6.2	37
101	**2012**,		37
100	XFEM buckling analysis of cracked composite plates. *Composite Structures*, **2015**, 131, 333-343	5.3	31
99	Plane-strain discrete dislocation plasticity incorporating anisotropic elasticity. *International Journal of Solids and Structures*, **2011**, 48, 374-387	3.1	27
98	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	6.7	27
97	Multiscale dynamic fracture behavior of the carbon nanotube reinforced concrete under impact loading. *International Journal of Impact Engineering*, **2016**, 87, 55-64	4	26
96	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	4.2	26
95	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	6	26
94	Micromechanics of breakage in sharp-edge particles using combined DEM and FEM. *Particuology*, **2008**, 6, 347-361	2.8	26
93	A New Approach for Numerical Modeling of Hydraulic Fracture Propagation in Naturally Fractured Reservoirs **2012**,		25
92	Eigenvalue buckling analysis of cracked functionally graded cylindrical shells in the framework of the extended finite element method. *Composite Structures*, **2017**, 159, 548-566	5.3	23
91	An extended element free Galerkin method for fracture analysis of functionally graded materials. *Mechanics of Advanced Materials and Structures*, **2016**, 23, 513-528	1.8	22
90	2D simulation of breakage of angular particles using combined DEM and XFEM. *Powder Technology*, **2018**, 336, 282-297	5.2	22

89	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	3.1	21
88	An efficient computational technique for modeling dislocation–precipitate interactions within dislocation dynamics. *Computational Materials Science*, **2016**, 122, 281-287	3.2	20
87	Analysis of transpression within contractional fault steps using finite-element method. *Journal of Structural Geology*, **2017**, 96, 1-20	3	19
86	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	3.7	19
85	An extended finite element framework for vibration analysis of cracked FGM shells. *Composite Structures*, **2017**, 180, 298-315	5.3	18
84	A two-mesh coupled gas flow–solid interaction model for 2D blast analysis in fractured media. *Finite Elements in Analysis and Design*, **2012**, 50, 48-69	2.2	18
83	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	6.7	17
82	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	1.4	17
81	3D hierarchical multiscale analysis of heterogeneous SMA based materials. *International Journal of Solids and Structures*, **2017**, 118-119, 24-40	3.1	16
80	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	3.1	16
79	XFEM–dislocation dynamics multi-scale modeling of plasticity and fracture. *Computational Materials Science*, **2015**, 104, 98-107	3.2	16
78	Analysis of cohesive cracking in saturated porous media using an extrinsically enriched EFG method. *Computers and Geotechnics*, **2015**, 63, 183-198	4.4	15
77	Large deflection analysis of flexible plates by the meshless finite point method. *Thin-Walled Structures*, **2010**, 48, 200-214	4.7	15
76	Thermo-mechanically coupled fracture analysis of shape memory alloys using the extended finite element method. *Smart Materials and Structures*, **2015**, 24, 045031	3.4	14
75	Fracture analysis of FRP-reinforced beams by orthotropic XFEM. *Journal of Composite Materials*, **2012**, 46, 1367-1389	2.7	14
74	A dislocation-dynamics-based derivation of the Frank–Read source characteristics for discrete dislocation plasticity. *Modelling and Simulation in Materials Science and Engineering*, **2008**, 16, 075002	2	13
73	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	3	13
72	Numerical analysis of crack tip fields in interface fracture of SMA/elastic bi-materials. *International Journal of Fracture*, **2015**, 195, 39-52	2.3	12

71	Non-uniform isentropic gas flow analysis of explosion in fractured solid media. *Finite Elements in Analysis and Design*, **2007**, 43, 478-493	2.2	12
70	An adapting cohesive approach for crack-healing analysis in SMA fiber-reinforced composites. *Computer Methods in Applied Mechanics and Engineering*, **2019**, 349, 550-575	5.7	11
69	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	5.7	10
68	Micromechanical study of particle breakage in 2D angular rockfill media using combined DEM and XFEM. *Granular Matter*, **2019**, 21, 1	2.6	10
67	Strong tangential discontinuity modeling of shear bands using the extended finite element method. *Computational Mechanics*, **2013**, 52, 1023-1038	4	10
66	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	2.4	10
65	Deformation mechanics in inclined, brittle-ductile transpression zones: Insights from 3D finite element modelling. *Journal of Structural Geology*, **2020**, 137, 104082	3	9
64	Modeling delamination in composite laminates using XFEM by new orthotropic enrichment functions. *IOP Conference Series: Materials Science and Engineering*, **2010**, 10, 012240	0.4	9
63	Transient analysis of stationary interface cracks in orthotropic bi-materials using oscillatory crack tip enrichments. *Composite Structures*, **2016**, 142, 200-214	5.3	8
62	How particle shape affects the flow through granular materials. *Physical Review E*, **2012**, 85, 036310	2.4	8
61	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	3.4	8
60	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	2.4	8
59	A coupled gas□olid interaction model for FE/DE simulation of explosion. *Finite Elements in Analysis and Design*, **2005**, 41, 1289-1308	2.2	8
58	Cytokines in narcolepsy: A systematic review and meta-analysis. *Cytokine*, **2020**, 131, 155103	4	8
57	Untangling narcolepsy and diabetes: Pathomechanisms with eyes on therapeutic options. *Brain Research*, **2019**, 1718, 212-222	3.7	7
56	Stable discontinuous space□ime 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	5.5	7
55	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	4	7
54	Contact based delamination and fracture analysis of composites. *Thin-Walled Structures*, **2002**, 40, 595-609	4.7	7

53	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	1.2	6
52	Nanoindentation simulation of coated aluminum thin film using quasicontinuum method. *Computational Materials Science*, **2016**, 111, 12-22	3.2	6
51	UCC: UML profile to cloud computing modeling: Using stereotypes and tag values **2014**,		5
50	3D Multi Delamination/Fracture Analysis of Composites Subjected to Impact Loadings. *Journal of Composite Materials*, **2007**, 41, 1459-1475	2.7	5
49	XFEM fracture analysis of cracked pipeline with and without FRP composite repairs. *Mechanics of Advanced Materials and Structures*, **2020**, 27, 1888-1899	1.8	5
48	Efficacy of Topical Enalapril in Treatment of Hypertrophic Scars. *World Journal of Plastic Surgery*, **2018**, 7, 326-331	0.8	5
47	Early excision and grafting (EE&G): Opportunity or threat?. *Burns*, **2017**, 43, 1358-1359	2.3	4
46	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	4.2	4
45	Analysis of fractured rock and gas flow interaction in explosion simulations. *Combustion, Explosion and Shock Waves*, **2007**, 43, 482-491	1	4
44	A field smoothing stabilization of particle methods in elastodynamics. *Finite Elements in Analysis and Design*, **2008**, 44, 564-579	2.2	4
43	3D Adaptive Multi Fracture Analysis of Composites. *Materials Science Forum*, **2003**, 440-441, 145-152	0.4	4
42	Performance of the anisotropic Morley shell element in dynamic large deformation analysis. *Communications in Numerical Methods in Engineering*, **1999**, 15, 445-455		4
41	Metabolic profile in patients with narcolepsy: a systematic review and meta-analysis. *Sleep Medicine* , **2021**, 81, 268-284	4.6	4
40	Hand aesthetic, an annoying problem for the burn patients, but commonly overlooked issue by the burn surgeons. *Burns*, **2017**, 43, 1130-1131	2.3	3
39	Multiscale Polynomial-Based High-Order Central High Resolution Schemes. *Journal of Scientific Computing*, **2019**, 80, 555-613	2.3	3
38	Unsteady fluid–solid interaction by a kernel-based particle method. *International Journal for Numerical Methods in Biomedical Engineering*, **2010**, 26, 1596-1603	2.6	3
37	A brittle to ductile phase transition fracture analysis of shape memory polymers. *Engineering Fracture Mechanics*, **2020**, 224, 106751	4.2	3
36	The foot, an important but less noticed burned area of the body. *Burns*, **2017**, 43, 1137	2.3	2

35	The variable node multiscale approach: Coupling the atomistic and continuum scales. *Computational Materials Science*, **2019**, 160, 256-274	3.2	2
34	Delamination analysis in bimaterials consisting of shape memory alloy and elastoplastic layers. *Composite Structures*, **2019**, 225, 111149	5.3	2
33	Micro-based enriched multiscale homogenization method for analysis of heterogeneous materials. *International Journal of Solids and Structures*, **2017**, 125, 22-42	3.1	2
32	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	2.5	2
31	Analysis of shock wave reflection from fixed and moving boundaries using a stabilized particle method. *Particuology*, **2009**, 7, 373-383	2.8	2
30	A STABILIZED PARTICLE METHOD FOR LARGE DEFORMATION DYNAMIC ANALYSIS OF STRUCTURES. *International Journal of Structural Stability and Dynamics*, **2012**, 12, 1250026	1.9	2
29	Meshless equilibrium on line method (MELM) for linear elasticity. *Structural Engineering and Mechanics*, **2010**, 35, 511-533		2
28	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	2.3	2
27	Phase evolution based thermomechanical crack closure mechanism of shape memory polymers. *Mechanics of Materials*, **2021**, 160, 103998	3.3	2
26	Numerical simulation of direct shear test on granular materials composed of breakable angular particles: A DEM-XFEM approach. *Powder Technology*, **2021**, 391, 450-466	5.2	2
25	Recurrent nonhealing wound in old burn scar may be due to Heterotopic Ossification. *Burns*, **2017**, 43, 1599-1601	2.3	1
24	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	2.3	1
23	Analytical Solution for Isothermal Flow in a Shock Tube Containing Rigid Granular Material. *Transport in Porous Media*, **2012**, 93, 13-27	3.1	1
22	Extended Finite Element Method for Isotropic Problems61-116		1
21	Maximum entropy based finite element analysis of porous media. *Frontiers of Structural and Civil Engineering*, **2019**, 13, 364-379	2.5	1
20	Evaluation of PatientsTSatisfaction 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	0.8	0
19	A Multiscale Finite Element Simulation of Human Aortic Heart Valve. *Applied Mechanics and Materials*, **2013**, 367, 275-279	0.3	0
18	Brain-derived neurotrophic factor in patients with epilepsy: A systematic review and meta-analysis. *Epilepsy Research*, **2021**, 178, 106794	3	0

17	Quasicontinuum multiscale modeling of the effect of rough surface on nanoindentation behavior. *Meccanica*, **2019**, 54, 411-427	2.1	0
16	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	2.5	0
15	The forgotten tract of vision in multiple sclerosis: vertical occipital fasciculus, its fiber properties, and visuospatial memory.. *Brain Structure and Function*, **2022**, 1	4	0
14	Evaluation of T-stress in stationary and propagating adiabatic cracks in FGM subjected to thermo-mechanical loading. *Mechanics of Advanced Materials and Structures*,1-20	1.8	0
13	Spectral-domain OCT measurements in obesity: A systematic review and meta-analysis.. *PLoS ONE*, **2022**, 17, e0267495	3.7	0
12	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	2.3	
11	Surgical technique, an important factor in tissue expander exposure complications. *Burns*, **2017**, 43, 1597-1598	2.3	
10	Well Test Analysis of Naturally Fractured Reservoirs with Unsteady State Behavior Using Direct Synthesis Technique. *Petroleum Science and Technology*, **2009**, 27, 263-278	1.4	
9	Fracture Mechanics, a Review13-60		
8	XFEM for Orthotropic Problems117-161		
7	XFEM for Cohesive Cracks163-188		
6	New Frontiers189-217		
5	XFEM Flow219-234		
4	Adaptive Numerical Simulation of Machining Process Involving Chip Creation. *Materials Science Forum*, **2003**, 440-441, 169-178	0.4	
3	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	0.8	
2	A Contact Based Method for 3D Delamination Analysis of Composites Subjected to Impact Loading **2001**, 691-696		
1	Post-Septoplasty Palatal Fistula in A Patient with Normal Palate: Case Report. *World Journal of Plastic Surgery*, **2018**, 7, 382-384	0.8	