BjÃ¸rn Skallerud

List of Publications by Year
in descending order

61	1,418	361413 20	361022 35
papers	citations	h-index	g-index

61	61	61	1351
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On modelling and analysis of healthy and pathological human mitral valves: Two case studies. Journal of the Mechanical Behavior of Biomedical Materials, 2010, 3, 167-177.	3.1	106
2	Transversely isotropic membrane shells with application to mitral valve mechanics. Constitutive modelling and finite element implementation. International Journal for Numerical Methods in Engineering, 2007, 71, 987-1008.	2.8	99
3	Surface roughness characterization for fatigue life predictions using finite element analysis. International Journal of Fatigue, 2008, 30, 2200-2209.	5.7	96
4	Finite element analysis of the mitral apparatus: annulus shape effect and chordal force distribution. Biomechanics and Modeling in Mechanobiology, 2009, 8, 43-55.	2.8	85
5	Efficient fracture assessment of pipelines. A constraint-corrected SENT specimen approach. Engineering Fracture Mechanics, 2001, 68, 527-547.	4.3	75
6	Subject specific finite element analysis of implant stability for a cementless femoral stem. Clinical Biomechanics, 2009, 24, 480-487.	1.2	53
7	Subject specific finite element analysis of stress shielding around a cementless femoral stem. Clinical Biomechanics, 2009, 24, 196-202.	1.2	49
8	FSI simulation of asymmetric mitral valve dynamics during diastolic filling. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 121-130.	1.6	48
9	Crystal plasticity modeling of microstructure influence on fatigue crack initiation in extruded Al6082-T6 with surface irregularities. International Journal of Fatigue, 2018, 111, 16-32.	5.7	43
10	Modeling active muscle contraction in mitral valve leaflets during systole: a first approach. Biomechanics and Modeling in Mechanobiology, 2011, 10, 11-26.	2.8	39
11	Anisotropic finite strain viscoelasticity: Constitutive modeling and finite element implementation. Journal of the Mechanics and Physics of Solids, 2019, 124, 172-188.	4.8	39
12	Constraint correction of high strength steel. Engineering Fracture Mechanics, 2004, 71, 2417-2433.	4.3	35
13	Collapse of thin shell structures?stress resultant plasticity modelling within a co-rotated ANDES finite element formulation. International Journal for Numerical Methods in Engineering, 1999, 46, 1961-1986.	2.8	34
14	Tension behaviour of HNBR and FKM elastomers for a wide range of temperatures. Polymer Testing, 2016, 49, 128-136.	4.8	34
15	Two-parameter fracture mechanics and circumferential crack growth in surface cracked pipelines using line-spring elements. Engineering Fracture Mechanics, 2008, 75, 17-30.	4.3	29
16	Cyclic behavior and strain energy-based fatigue damage analysis of mooring chains high strength steel. Marine Structures, 2020, 70, 102703.	3.8	29
17	A 3D numerical study of ductile tearing and fatigue crack growth under nominal cyclic plasticity. International Journal of Solids and Structures, 1997, 34, 3141-3161.	2.7	28
18	Ultimate fracture capacity of pressurised pipes with defects â€“ Comparisons of large scale testing and numerical simulations. Engineering Fracture Mechanics, 2008, 75, 2352-2366.	4.3	23

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19	A gradient-based multiaxial criterion for fatigue crack initiation prediction in components with surface roughness. International Journal of Fatigue, 2018, 117, 384-395.	5.7	22
20	Void Coalescence With and Without Prestrain History. International Journal of Damage Mechanics, 2010, 19, 153-174.	4.2	21
21	Impact of Pulmonary Venous Locations on the Intra-Atrial Flow and the Mitral Valve Plane Velocity Profile. Cardiovascular Engineering and Technology, 2012, 3, 269-281.	1.6	21
22	An experimental and numerical study on the volume change of particle-filled elastomers in various loading modes. Mechanics of Materials, 2017, 106, 44-57.	3.2	21
23	Numerical investigation of ductile tearing in surface cracked pipes using line-springs. International Journal of Solids and Structures, 2006, 43, 2378-2397.	2.7	20
24	Enabling sequential rupture for lowering atomistic ice adhesion. Nanoscale, 2019, 11, 16262-16269.	5.6	20
25	Structural integrity of pipelines: Tâ€stress by lineâ€spring. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 467-488.	3.4	19
26	Buckling initiation in layered hydrogels during transient swelling. Journal of the Mechanics and Physics of Solids, 2019, 128, 219-238.	4.8	19
27	MicroCT-based finite element models as a tool for virtual testing of cortical bone. Medical Engineering and Physics, 2017, 46, 12-20.	1.7	18
28	Experimental and numerical study of mooring chain residual stresses and implications for fatigue life. International Journal of Fatigue, 2020, 135, 105530.	5.7	18
29	A fast strong coupling algorithm for the partitioned fluidâ€“structure interaction simulation of BMHVs. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 1281-1312.	1.6	17
30	INELASTIC LINE SPRINGS IN NON-LINEAR ANALYSIS OF CRACKED TUBULAR JOINTS. Fatigue and Fracture of Engineering Materials and Structures, 1995, 18, 463-475.	3.4	14
31	Thin shell and surface crack finite elements for simulation of combined failure modes. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 2619-2640.	6.6	14
32	Vitamin <scp>K2</scp> Modulates Vitamin Dâ€Induced Mechanical Properties of Human <scp>3D</scp> Bone Spheroids In Vitro. JBMR Plus, 2020, 4, e10394.	2.7	13
33	A mixed mode I/II inelastic line spring. International Journal of Solids and Structures, 1996, 33, 4143-4166.	2.7	12
34	Soft palate muscle activation: a modeling approach for improved understanding of obstructive sleep apnea. Biomechanics and Modeling in Mechanobiology, 2019, 18, 531-546.	2.8	12
35	Reduction in wire tension caused by dynamic loading. An experimental Ilizarov frame study. Journal of Biomechanics, 2011, 44, 1454-1458.	2.1	11
36	Nanoindentation and finite element modelling of chitosanâ€“alginate multilayer coated hydrogels. Soft Matter, 2016, 12, 7338-7349.	2.7	11

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37	Adiponectin Reduces Bone Stiffness: Verified in a Three-Dimensional Artificial Human Bone Model In Vitro. Frontiers in Endocrinology, 2018, 9, 236.	3.5	11
38	Simplified stress resultants plasticity on a geometrically nonlinear constant stress shell element. Computers and Structures, 2001, 79, 1723-1734.	4.4	10
39	Evaluation of fracture mechanics parameters for free edges in multi-layered structures with weak singularities. International Journal of Solids and Structures, 2009, 46, 1134-1148.	2.7	10
40	Smooth muscle in the human mitral valve: extent and implications for dynamic modelling. Apmis, 2012, 120, 484-494.	2.0	10
41	Velocity profiles in the human ductus venosus: a numerical fluid structure interaction study. Biomechanics and Modeling in Mechanobiology, 2013, 12, 1019-1035.	2.8	10
42	Mode I stress intensity factors for semi-elliptical fatigue cracks in curved round bars. Theoretical and Applied Fracture Mechanics, 2021, 112, 102904.	4.7	10
43	Two-parameter fracture assessment of surface cracked cylindrical shells during collapse. Engineering Fracture Mechanics, 2006, 73, 264-282.	4.3	9
44	Swelling of a hemi-ellipsoidal ionic hydrogel for determination of material properties of deposited thin polymer films: an inverse finite element approach. Soft Matter, 2013, 9, 5815.	2.7	9
45	Skeletal effects of a gastrin receptor antagonist in H+/K+ATPase beta subunit KO mice. Journal of Endocrinology, 2016, 230, 251-262.	2.6	9
46	Numerical analysis of cracked inelastic shells with large displacements or mixed mode loading. International Journal of Solids and Structures, 1999, 36, 2259-2283.	2.7	8
47	Closed form line spring yield surfaces for deep and shallow cracks: formulation and numerical performance. Computers and Structures, 2002, 80, 533-545.	4.4	8
48	Effects of the Histamine 1 Receptor Antagonist Cetirizine on the Osteoporotic Phenotype in H⁺/K⁺ATPase Beta Subunit KO Mice. Journal of Cellular Biochemistry, 2016, 117, 2089-2096.	2.6	7
49	Volume growth during uniaxial tension of particle-filled elastomers at various temperatures â€“ Experiments and modelling. Journal of the Mechanics and Physics of Solids, 2017, 107, 33-48.	4.8	7
50	Palatal implant surgery effectiveness in treatment of obstructive sleep apnea: A numerical method with 3D patient-specific geometries. Journal of Biomechanics, 2018, 66, 86-94.	2.1	7
51	A UNIAXIAL CYCLIC PLASTICITY MODEL INCLUDING TRANSIENT MATERIAL BEHAVIOUR. Fatigue and Fracture of Engineering Materials and Structures, 1989, 12, 611-625.	3.4	6
52	On numerical analysis of damage evolution in cyclic elastic-plastic crack growth problems. Fatigue and Fracture of Engineering Materials and Structures, 2001, 24, 81-86.	3.4	6
53	Finite element modelling of cracked inelastic shells with large deflections: two-dimensional and three-dimensional approaches. Fatigue and Fracture of Engineering Materials and Structures, 2000, 23, 253-261.	3.4	5
54	The fluid phase of morsellized bone: Characterization of viscosity and chemical composition. Journal of the Mechanical Behavior of Biomedical Materials, 2008, 1, 199-205.	3.1	5

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55	Wire tension versus wire frequency: An experimental Ilizarov frame study. Journal of Biomechanics, 2010, 43, 2327-2331.	2.1	5
56	Grain-size Induced Strengthening and Weakening of Dislocation-free Polycrystalline Gas Hydrates. Procedia IUTAM, 2017, 21, 11-16.	1.2	5
57	The modified cam clay model for constrained compression of human morsellised bone: Effects of porosity on the mechanical behaviour. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 43-50.	3.1	4
58	Nanoindentation response of cortical bone: dependency of subsurface voids. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1599-1612.	2.8	3
59	Microstructure and mechanics of the bovine trachea: Layer specific investigations through SHG imaging and biaxial testing. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 134, 105371.	3.1	3
60	Nonlinear Effects on Shakedown of Sidesway Frames. Journal of Structural Engineering, 1989, 115, 221-227.	3.4	2
61	On the applicability of bovine morsellized cortico-cancellous bone as a substitute for human morsellized cortico-cancellous bone for in vitro mechanical testing. Journal of Biomechanics, 2008, 41, 3469-3474.	2.1	2