

Manfred Bischoff

List of Publications by Year in descending order

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Version: 2024-02-01

59
papers

2,268
citations

304368

22
h-index

214527

47
g-index

62
all docs

62
docs citations

62
times ranked

1112
citing authors

#	ARTICLE	IF	CITATIONS
1	A unified approach for shear-locking-free triangular and rectangular shell finite elements. Computers and Structures, 2000, 75, 321-334.	2.4	348
2	Shear deformable shell elements for large strains and rotations. International Journal for Numerical Methods in Engineering, 1997, 40, 4427-4449.	1.5	341
3	A hierarchic family of isogeometric shell finite elements. Computer Methods in Applied Mechanics and Engineering, 2013, 254, 170-180.	3.4	223
4	Numerical efficiency, locking and unlocking of NURBS finite elements. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 374-382.	3.4	143
5	On the physical significance of higher order kinematic and static variables in a three-dimensional shell formulation. International Journal of Solids and Structures, 2000, 37, 6933-6960.	1.3	129
6	Nonlinear shell formulations for complete three-dimensional constitutive laws including composites and laminates. Computational Mechanics, 1994, 15, 1-18.	2.2	104
7	A point to segment contact formulation for isogeometric, NURBS based finite elements. Computer Methods in Applied Mechanics and Engineering, 2013, 255, 27-39.	3.4	65
8	Snapping mechanics of the Venus flytrap (<i>Dionaea muscipula</i>). Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16035-16042.	3.3	65
9	The discrete strain gap method and membrane locking. Computer Methods in Applied Mechanics and Engineering, 2005, 194, 2444-2463.	3.4	64
10	A shear deformable, rotation-free isogeometric shell formulation. Computer Methods in Applied Mechanics and Engineering, 2016, 307, 235-255.	3.4	56
11	A class of equivalent enhanced assumed strain and hybrid stress finite elements. Computational Mechanics, 1999, 22, 443-449.	2.2	54
12	How the carnivorous waterwheel plant (<i>Aldrovanda vesiculosa</i>) snaps. Proceedings of the Royal Society B: Biological Sciences, 2018, 285, 20180012.	1.2	46
13	Hierarchic isogeometric large rotation shell elements including linearized transverse shear parametrization. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 383-405.	3.4	45
14	On steady-state disturbance compensability for actuator placement in adaptive structures. Automatisierungstechnik, 2018, 66, 591-603.	0.4	41
15	Consistent treatment of boundaries with mortar contact formulations using dual Lagrange multipliers. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1317-1332.	3.4	34
16	The implementation of adaptive elements into an experimental high-rise building. Steel Construction, 2018, 11, 109-117.	0.4	34
17	Buckling analysis of imperfect I-section beam-columns with stochastic shell finite elements. Computational Mechanics, 2010, 46, 495-510.	2.2	33
18	A deformation dependent stabilization technique, exemplified by EAS elements at large strains. Computer Methods in Applied Mechanics and Engineering, 2000, 188, 859-871.	3.4	32

#	ARTICLE	IF	CITATIONS
19	A variational method to avoid locking— independent of the discretization scheme. International Journal for Numerical Methods in Engineering, 2018, 114, 801-827.	1.5	29
20	Adaptive path following schemes for problems with softening. Finite Elements in Analysis and Design, 2014, 86, 12-22.	1.7	27
21	Variational methods for selective mass scaling. Computational Mechanics, 2013, 52, 563-570.	2.2	26
22	On the mathematical foundation of the (1,1,2)-plate model. International Journal of Solids and Structures, 1999, 36, 2143-2168.	1.3	25
23	The Structural and Mechanical Basis for Passive—Hydraulic Pine Cone Actuation. Advanced Science, 2022, 9, e2200458.	5.6	23
24	A generalization of the method of incompatible modes. International Journal for Numerical Methods in Engineering, 2007, 69, 1851-1868.	1.5	22
25	Local and global strategies for optimal selective mass scaling. Computational Mechanics, 2014, 53, 1197-1207.	2.2	18
26	Improving efficiency and robustness of enhanced assumed strain elements for nonlinear problems. International Journal for Numerical Methods in Engineering, 2021, 122, 1911-1939.	1.5	18
27	Improving stability and accuracy of Reissner—Mindlin plate finite elements via algebraic subgrid scale stabilization. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 1517-1528.	3.4	17
28	Incompatible Bubbles: A non-conforming finite element formulation for linear elasticity. Computer Methods in Applied Mechanics and Engineering, 2007, 196, 1662-1672.	3.4	15
29	Geometric element parameterization and parametric model order reduction in finite element based shape optimization. Computational Mechanics, 2019, 63, 853-868.	2.2	15
30	Computational co-design framework for coreless wound fibre—polymer composite structures. Journal of Computational Design and Engineering, 2022, 9, 310-329.	1.5	14
31	A Case Study on Design and Optimization of Adaptive Civil Structures. Frontiers in Built Environment, 2020, 6, .	1.2	12
32	Development of a Material Design Space for 4D-Printed Bio-Inspired Hygroscopically Actuated Bilayer Structures with Unequal Effective Layer Widths. Biomimetics, 2021, 6, 58.	1.5	11
33	Structural stress response of segmented natural shells: a numerical case study on the clypeasteroid echinoid Echinocyamus pusillus. Journal of the Royal Society Interface, 2018, 15, 20180164.	1.5	10
34	Smooth or with a Snap! Biomechanics of Trap Reopening in the Venus Flytrap (<i>Dionaea</i> Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 To	5.6	10
35	Variationally consistent inertia templates for B-spline- and NURBS-based FEM: Inertia scaling and customization. Computer Methods in Applied Mechanics and Engineering, 2017, 326, 596-621.	3.4	9
36	A variational formulation for motion design of adaptive compliant structures. International Journal for Numerical Methods in Engineering, 2021, 122, 972-1000.	1.5	9

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37	Shape optimization of shells and locking. Computers and Structures, 2004, 82, 2551-2561.	2.4	7
38	Numerical approaches to stability analysis of cylindrical composite shells based on load imperfections. Engineering Computations, 2015, 32, 498-518.	0.7	7
39	On stability and reflectionâ€”transmission analysis of the bipenalty method in contactâ€”impact problems: A oneâ€”dimensional, homogeneous case study. International Journal for Numerical Methods in Engineering, 2018, 113, 1607-1629.	1.5	7
40	A study on the approximation power of NURBS and the significance of exact geometry in isogeometric pre-buckling analyses of shells. Computer Methods in Applied Mechanics and Engineering, 2022, 397, 115144.	3.4	7
41	Modeling of material failure by the discrete element method. Proceedings in Applied Mathematics and Mechanics, 2010, 10, 685-688.	0.2	6
42	Motion Design with Efficient Actuator Placement for Adaptive Structures that Perform Large Deformations. Frontiers in Built Environment, 2021, 7, .	1.2	6
43	Optimal Design of Adaptive Structures vs. Optimal Adaption of Structural Design. IFAC-PapersOnLine, 2020, 53, 8363-8369.	0.5	6
44	Structural models based on 3D constitutive laws: Variational structure and numerical solution. Computer Methods in Applied Mechanics and Engineering, 2020, 362, 112872.	3.4	5
45	Intrinsically lockingâ€”free formulations for isogeometric beam, plate and shell analysis. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800399.	0.2	4
46	Input modeling for active structural elements - extending the established FE-Work?ow for modeling of adaptive structures. , 2020, , .		4
47	Time step estimates for explicit dynamics with reciprocal mass matrices. Computers and Structures, 2018, 202, 74-84.	2.4	3
48	Discrete Strain Gap (DSG) solid finite elements at large deformations for non-linear analysis of shells and solids. , 2006, , 654-654.		2
49	Adaptive discrete-continuous modeling of evolving discontinuities. Engineering Computations, 2014, 31, 1305-1320.	0.7	2
50	Structural Design with Biological Methods: Optimality, Multi-functionality and Robustness. Biologically-inspired Systems, 2016, , 341-360.	0.4	2
51	A Consistent Finite Element Formulation of the Geometrically Non-linear Reissner-Mindlin Shell Model. Archives of Computational Methods in Engineering, 2022, 29, 3387-3434.	6.0	2
52	Constrained motion design with distinct actuators and motion stabilization. International Journal for Numerical Methods in Engineering, 2021, 122, 2712-2732.	1.5	1
53	Non-linear dynamic contact of thin-walled structures. Proceedings in Applied Mathematics and Mechanics, 2008, 8, 10267-10268.	0.2	0
54	Time step estimates for explicit dynamics with reciprocal mass matrices. Proceedings in Applied Mathematics and Mechanics, 2018, 18, e201800039.	0.2	0

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55	Einfluss der Geometrieapproximation auf die Stabilitätsanalyse von Schalenträgwerken. , 2018, , 71-73.		0
56	Finite Elements for Plates and Shells. , 2018, , 1-23.		0
57	Finite Elements for Plates and Shells. , 2020, , 898-920.		0
58	Strategy for Preventing Membrane Locking Through Reparametrization. , 2022, , 61-73.		0
59	Intrinsically Selective Mass Scaling with Hierarchic Structural Element Formulations. , 0, , .		0