Josef Kiendl

List of Publications by Year
in descending order

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55 papers	4,490 citations	159358 30 h-index	161609 54 g-index
56 all docs	56 docs citations	56 times ranked	1933 citing authors

#	Article	IF	Citations
1	Isogeometric shell analysis with Kirchhoffâ€“Love elements. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 3902-3914.	3.4	766
2	The bending strip method for isogeometric analysis of Kirchhoffâ€“Love shell structures comprised of multiple patches. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 2403-2416.	3.4	419
3	3D simulation of wind turbine rotors at full scale. Part II: Fluidâ€“structure interaction modeling with composite blades. International Journal for Numerical Methods in Fluids, 2011, 65, 236-253.	0.9	379
4	Rotation free isogeometric thin shell analysis using PHT-splines. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 3410-3424.	3.4	335
5	Isogeometric Kirchhoffâ€“Love shell formulations for general hyperelastic materials. Computer Methods in Applied Mechanics and Engineering, 2015, 291, 280-303.	3.4	245
6	Dynamic and fluidâ€“structure interaction simulations of bioprosthetic heart valves using parametric design with T-splines and Fung-type material models. Computational Mechanics, 2015, 55, 1211-1225.	2.2	207
7	Free vibration analysis of thin plates by using a NURBS-based isogeometric approach. Finite Elements in Analysis and Design, 2012, 61, 23-34.	1.7	126
8	Isogeometric shape optimization of shells using semi-analytical sensitivity analysis and sensitivity weighting. Computer Methods in Applied Mechanics and Engineering, 2014, 274, 148-167.	3.4	123
9	Phase-field description of brittle fracture in plates and shells. Computer Methods in Applied Mechanics and Engineering, 2016, 312, 374-394.	3.4	115
10	Locking-free isogeometric collocation methods for spatial Timoshenko rods. Computer Methods in Applied Mechanics and Engineering, 2013, 263, 113-126.	3.4	114
11	Controlling toughness and strength of FDM 3D-printed PLA components through the raster layup. Composites Part B: Engineering, 2020, 180, 107562.	5.9	113
12	Variational formulations, model comparisons and numerical methods for Eulerâ€“Bernoulli micro- and nano-beam models. Mathematics and Mechanics of Solids, 2019, 24, 312-335.	1.5	91
13	Single-variable formulations and isogeometric discretizations for shear deformable beams. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 988-1004.	3.4	90
14	Penalty coupling of non-matching isogeometric Kirchhoffâ€“Love shell patches with application to composite wind turbine blades. Computer Methods in Applied Mechanics and Engineering, 2019, 346, 810-840.	3.4	84
15	Isogeometric analysis for sixth-order boundary value problems of gradient-elastic Kirchhoff plates. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 328-348.	3.4	79
16	A computational procedure for prebending of wind turbine blades. International Journal for Numerical Methods in Engineering, 2012, 89, 323-336.	1.5	77
17	Isogeometric collocation methods for the Reissnerâ€“Mindlin plate problem. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 489-507.	3.4	68
18	On the Assumed Natural Strain method to alleviate locking in solid-shell NURBS-based finite elements. Computational Mechanics, 2014, 53, 1341-1353.	2.2	67

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19	A locking-free model for Reissnerâ€“Mindlin plates: Analysis and isogeometric implementation via NURBS and triangular NURPS. Mathematical Models and Methods in Applied Sciences, 2015, 25, 1519-1551.	1.7	64
20	Assumed Natural Strain NURBS-based solid-shell element for the analysis of large deformation elasto-plastic thin-shell structures. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 861-880.	3.4	59
21	Seamless integration of design and Kirchhoffâ€“Love shell analysis using analysis-suitable unstructured T-splines. Computer Methods in Applied Mechanics and Engineering, 2020, 360, 112765.	3.4	58
22	An anisotropic constitutive model for immersogeometric fluidâ€“structure interaction analysis of bioprosthetic heart valves. Journal of Biomechanics, 2018, 74, 23-31.	0.9	56
23	Isogeometric Kirchhoffâ€“Love shell formulation for elasto-plasticity. Computer Methods in Applied Mechanics and Engineering, 2018, 340, 320-339.	3.4	53
24	A simplified Kirchhoffâ€“Love large deformation model for elastic shells and its effective isogeometric formulation. Computer Methods in Applied Mechanics and Engineering, 2019, 354, 369-396.	3.4	51
25	Arbitrary-degree T-splines for isogeometric analysis of fully nonlinear Kirchhoffâ€“Love shells. CAD Computer Aided Design, 2017, 82, 140-153.	1.4	50
26	Isogeometric collocation for the Reissnerâ€“Mindlin shell problem. Computer Methods in Applied Mechanics and Engineering, 2017, 325, 645-665.	3.4	46
27	Kirchhoffâ€“Love shells within strain gradient elasticity: Weak and strong formulations and an <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" id="mml31" display="inline" overflow="scroll" altimg="si31.gif"><mml:msup><mml:mrow><mml:mi>H</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></<m isogeometric implementation. Computer Methods in Applied Mechanics and Engineering, 2019, 344, 837-857.	3.4	42
28	Realization of an integrated structural design process: analysis-suitable geometric modelling and isogeometric analysis. Computing and Visualization in Science, 2010, 13, 315-330.	1.2	41
29	Optimization of Manufacturing Parameters and Tensile Specimen Geometry for Fused Deposition Modeling (FDM) 3D-Printed PETG. Materials, 2021, 14, 2556.	1.3	39
30	A framework for isogeometricâ€analysisâ€based optimization of wind turbine blade structures. Wind Energy, 2019, 22, 153-170.	1.9	36
31	A robust penalty coupling of non-matching isogeometric Kirchhoffâ€“Love shell patches in large deformations. Computer Methods in Applied Mechanics and Engineering, 2020, 371, 113289.	3.4	35
32	An isogeometric collocation method for frictionless contact of Cosserat rods. Computer Methods in Applied Mechanics and Engineering, 2017, 321, 361-382.	3.4	30
33	A natural framework for isogeometric fluidâ€“structure interaction based on BEMâ€“shell coupling. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 522-546.	3.4	30
34	A framework for efficient isogeometric computations of phase-field brittle fracture in multipatch shell structures. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113363.	3.4	30
35	An immersed-boundary/isogeometric method for fluidâ€“structure interaction involving thin shells. Computer Methods in Applied Mechanics and Engineering, 2020, 364, 112977.	3.4	30
36	Explicit isogeometric collocation for the dynamics of three-dimensional beams undergoing finite motions. Computer Methods in Applied Mechanics and Engineering, 2019, 343, 530-549.	3.4	27

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37	Isogeometric collocation for implicit dynamics of three-dimensional beams undergoing finite motions. Computer Methods in Applied Mechanics and Engineering, 2019, 356, 548-570.	3.4	26
38	Hierarchically refined isogeometric analysis of trimmed shells. Computational Mechanics, 2020, 66, 431-447.	2.2	23
39	Phase-field simulation of ductile fracture in shell structures. Computer Methods in Applied Mechanics and Engineering, 2021, 385, 114019.	3.4	22
40	A displacement-free formulation for the Timoshenko beam problem and a corresponding isogeometric collocation approach. Meccanica, 2018, 53, 1403-1413.	1.2	20
41	Accurate equilibrium-based interlaminar stress recovery for isogeometric laminated composite Kirchhoff plates. Composite Structures, 2021, 256, 112976.	3.1	18
42	A curvilinear isogeometric framework for the electromechanical activation of thin muscular tissues. Computer Methods in Applied Mechanics and Engineering, 2021, 382, 113877.	3.4	14
43	Coupling of non-conforming trimmed isogeometric Kirchhoffâ€“Love shells via a projected super-penalty approach. Computer Methods in Applied Mechanics and Engineering, 2021, 387, 114187.	3.4	14
44	Nonlinear isogeometric multiscale simulation for design and fabrication of functionally graded knitted textiles. Composites Part B: Engineering, 2020, 202, 108416.	5.9	13
45	Experimental and numerical investigations on heat transfer in fused filament fabrication 3D-printed specimens. International Journal of Advanced Manufacturing Technology, 2022, 118, 1367-1381.	1.5	13
46	A simple and effective method based on strain projections to alleviate locking in isogeometric solid shells. Computational Mechanics, 2020, 65, 1621-1631.	2.2	12
47	Efficient equilibrium-based stress recovery for isogeometric laminated curved structures. Composite Structures, 2021, 272, 113975.	3.1	9
48	An isogeometric analysis formulation for red blood cell electro-deformation modeling. Computer Methods in Applied Mechanics and Engineering, 2018, 338, 392-411.	3.4	8
49	An isogeometric finite element-boundary element approach for the vibration analysis of submerged thin-walled structures. Computers and Structures, 2021, 256, 106636.	2.4	6
50	Short review on architectured materials with topological interlocking mechanisms. Material Design and Processing Communications, 2019, 1, e31.	0.5	4
51	Isogeometric collocation mixed methods for rods. Discrete and Continuous Dynamical Systems - Series S, 2016, 9, 33-42.	0.6	4
52	Stability analysis of plates using cut Bogner-Fox-Schmit elements. Computers and Structures, 2022, 270, 106854.	2.4	4
53	Penalty coupling of trimmed isogeometric Kirchhoffâ€“Love shell patches. Journal of Mechanics, 2022, 38, 156-165.	0.7	3
54	Isogeometric phase-field modeling of brittle and ductile fracture in shell structures. Journal of Physics: Conference Series, 2016, 734, 032006.	0.3	2

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55	Isogeometric Collocation Methods for the Nonlinear Dynamics of Three-Dimensional Timoshenko Beams. Lecture Notes in Mechanical Engineering, 2020, , 1179-1189.	0.3	0