Martin Ruess

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/6464877/publications.pdf

Version: 2024-02-01

29 papers	1,393 citations	361413 20 h-index	477307 29 g-index
29 all docs	29 docs citations	29 times ranked	704 citing authors

#	Article	IF	Citations
1	The Finite Cell Method: A Review in the Context of Higher-Order Structural Analysis of CAD and Image-Based Geometric Models. Archives of Computational Methods in Engineering, 2015, 22, 391-455.	10.2	218
2	Weakly enforced essential boundary conditions for NURBSâ€embedded and trimmed NURBS geometries on the basis of the finite cell method. International Journal for Numerical Methods in Engineering, 2013, 95, 811-846.	2.8	148
3	Small and large deformation analysis with the p- and B-spline versions of the Finite Cell Method. Computational Mechanics, 2012, 50, 445-478.	4.0	145
4	Nitscheâ€™s method for a coupling of isogeometric thin shells and blended shell structures. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 881-905.	6.6	132
5	The finite cell method for bone simulations: verification and validation. Biomechanics and Modeling in Mechanobiology, 2012, 11, 425-437.	2.8	99
6	An efficient integration technique for the voxelâ€based finite cell method. International Journal for Numerical Methods in Engineering, 2012, 91, 457-471.	2.8	65
7	The Koiterâ€“Newton approach using von KÃ¡rmÃ¡n kinematics for buckling analyses of imperfection sensitive structures. Computer Methods in Applied Mechanics and Engineering, 2014, 279, 440-468.	6.6	58
8	The Finite Cell Method for linear thermoelasticity. Computers and Mathematics With Applications, 2012, 64, 3527-3541.	2.7	55
9	A parameter-free variational coupling approach for trimmed isogeometric thin shells. Computational Mechanics, 2017, 59, 693-715.	4.0	48
10	The tetrahedral finite cell method: Higherâ€order immersogeometric analysis on adaptive nonâ€boundaryâ€fitted meshes. International Journal for Numerical Methods in Engineering, 2016, 107, 1054-1079.	2.8	42
11	Isogeometric stability analysis of thin shells: From simple geometries to engineering models. International Journal for Numerical Methods in Engineering, 2019, 118, 433-458.	2.8	41
12	A layerwise isogeometric approach for NURBS-derived laminate composite shells. Composite Structures, 2015, 124, 300-309.	5.8	40
13	Non-standard bone simulation: interactive numerical analysis by computational steering. Computing and Visualization in Science, 2011, 14, 207-216.	1.2	39
14	An efficient mixed variational reducedâ€order model formulation for nonlinear analyses of elastic shells. International Journal for Numerical Methods in Engineering, 2018, 113, 634-655.	2.8	39
15	A contact extended isogeometric layerwise approach for the buckling analysis of delaminated composites. Composite Structures, 2014, 116, 55-66.	5.8	36
16	Parameter-free, weak imposition of Dirichlet boundary conditions and coupling of trimmed and non-conforming patches. International Journal for Numerical Methods in Engineering, 2015, 101, 670-699.	2.8	36
17	Multiâ€level hpâ€finite cell method for embedded interface problems with application in biomechanics. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2951.	2.1	28
18	Weak Dirichlet boundary conditions for trimmed thin isogeometric shells. Computers and Mathematics With Applications, 2015, 70, 1425-1440.	2.7	27

#	Article	IF	Citations
19	Stacking sequence influence on imperfection sensitivity of cylindrical composite shells under axial compression. Composite Structures, 2015, 134, 750-761.	5.8	23
20	An eigenanalysis-based bifurcation indicator proposed in the framework of a reduced-order modeling technique for non-linear structural analysis. International Journal of Non-Linear Mechanics, 2016, 81, 129-138.	2.6	20
21	The diffuse Nitsche method: Dirichlet constraints on phaseâ€field boundaries. International Journal for Numerical Methods in Engineering, 2018, 113, 601-633.	2.8	18
22	Uncertainty quantification for personalized analyses of human proximal femurs. Journal of Biomechanics, 2016, 49, 520-527.	2.1	12
23	A new robust design for imperfection sensitive stiffened cylinders used in aerospace engineering. Science China Technological Sciences, 2015, 58, 796-802.	4.0	9
24	The Finite Cell Method for large deformation analysis. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 271-272.	0.2	4
25	A feedback-loop extended stress fiber growth model with focal adhesion formation. International Journal of Solids and Structures, 2017, 128, 160-173.	2.7	3
26	On the monolithic and staggered solution of cell contractility and focal adhesion growth. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e3138.	2.1	3
27	An extended QRâ€solver for large profiled matrices. International Journal for Numerical Methods in Engineering, 2009, 79, 1419-1442.	2.8	2
28	Application of the Finite Cell Method to patient-specific femur simulations. Proceedings in Applied Mathematics and Mechanics, 2011, 11, 117-118.	0.2	2
29	Weak coupling of thin-walled multi-patch NURBS structures in the framework of isogeometric analysis. Proceedings in Applied Mathematics and Mechanics, 2014, 14, 271-272.	0.2	1