Adarsh Krishnamurthy

List of Publications by Year
in descending order

59 papers	1,134 citations	430442 18 h-index	414034 32 g-index
59 all docs	59 docs citations	59 times ranked	1124 citing authors

#	Article	IF	Citations
1	NURBS-Diff: A Differentiable Programming Module for NURBS. CAD Computer Aided Design, 2022, 146, 103199.	1.4	10
2	HyBoDT: Hybrid Bounded Distance Transforms of Trimmed NURBS Models. Journal of Computing and Information Science in Engineering, 2022, 22, .	1.7	0
3	GPU-Accelerated Collision Analysis of Vehicles in a Point Cloud Environment. IEEE Computer Graphics and Applications, 2022, 42, 37-50.	1.0	1
4	Computational investigation of left ventricular hemodynamics following bioprosthetic aortic and mitral valve replacement. Mechanics Research Communications, 2021, 112, 103604.	1.0	39
5	Direct 3D printing of multi-level voxel models. Additive Manufacturing, 2021, 40, 101929.	1.7	3
6	Performance enhancement in tribological properties of lubricants by dispersing TiO2 nanoparticles. Materials Today: Proceedings, 2021, 47, 6180-6184.	0.9	8
7	Fiber Layup Generation on Curved Composite Structures. CAD Computer Aided Design, 2021, 136, 103031.	1.4	5
8	Polarized X-ray scattering measures molecular orientation in polymer-grafted nanoparticles. Nature Communications, 2021, 12, 4896.	5.8	11
9	Multi-resolution 3D CNN for learning multi-scale spatial features in CAD models. Computer Aided Geometric Design, 2021, , 102038.	0.5	2
10	Industrial scale Large Eddy Simulations with adaptive octree meshes using immersogeometric analysis. Computers and Mathematics With Applications, 2021, 97, 28-44.	1.4	15
11	Neural-network model for force prediction in multi-principal-element alloys. Computational Materials Science, 2021, 198, 110693.	1.4	2
12	Scalable adaptive PDE solvers in arbitrary domains. , 2021, , .		6
13	Algorithmically-consistent deep learning frameworks for structural topology optimization. Engineering Applications of Artificial Intelligence, 2021, 106, 104483.	4.3	26
14	GPU-Accelerated Post-Processing and Animated Volume Rendering of Isogeometric Analysis Results. Computer-Aided Design and Applications, 2021, 19, 779-796.	0.4	1
15	AI Guided Measurement of Live Cells Using AFM. IFAC-PapersOnLine, 2021, 54, 316-321.	0.5	4
16	NURBS-based microstructure design for organic photovoltaics. CAD Computer Aided Design, 2020, 118, 102771.	1.4	4
17	An integrated framework for solid modeling and structural analysis of layered composites with defects. CAD Computer Aided Design, 2019, 106, 1-12.	1.4	8
18	A framework for 3D x-ray CT iterative reconstruction using GPU-accelerated ray casting. AIP Conference Proceedings, 2019, , .	0.3	3

#	Article	IF	Citations
19	Optimization Framework for Patient-Specific Cardiac Modeling. Cardiovascular Engineering and Technology, 2019, 10, 553-567.	0.7	10
20	A framework for biomechanics simulations using four-chamber cardiac models. Journal of Biomechanics, 2019, 91, 92-101.	0.9	10
21	Edge topology construction of Voronoi diagrams of spheres in non-general position. Computers and Graphics, 2019, 82, 332-342.	1.4	16
22	NURBS-Python: An open-source object-oriented NURBS modeling framework in Python. SoftwareX, 2019, 9, 85-94.	1.2	59
23	Multi-Level 3D CNN for Learning Multi-Scale Spatial Features. , 2019, , .		11
24	A Deep Learning Framework for Design and Analysis of Surgical Bioprosthetic Heart Valves. Scientific Reports, 2019, 9, 18560.	1.6	37
25	Learning localized features in 3D CAD models for manufacturability analysis of drilled holes. Computer Aided Geometric Design, 2018, 62, 263-275.	0.5	53
26	GPU-accelerated depth map generation for X-ray simulations of complex CAD geometries. AIP Conference Proceedings, 2018, , .	0.3	1
27	GPU-accelerated generation and rendering of multi-level voxel representations of solid models. Computers and Graphics, 2018, 75, 11-24.	1.4	21
28	Rapid B-rep model preprocessing for immersogeometric analysis using analytic surfaces. Computer Aided Geometric Design, 2017, 52-53, 190-204.	0.5	30
29	Incorporation of composite defects from ultrasonic NDE into CAD and FE models. AIP Conference Proceedings, 2017, , .	0.3	3
30	Voronoi cells of non-general position spheres using the GPU. Computer-Aided Design and Applications, 2017, 14, 572-581.	0.4	8
31	A framework for parametric design optimization using isogeometricÂanalysis. Computer Methods in Applied Mechanics and Engineering, 2017, 316, 944-965.	3.4	59
32	Model of Human Fetal Growth in Hypoplastic Left Heart Syndrome: Reduced Ventricular Growth Due to Decreased Ventricular Filling and Altered Shape. Frontiers in Pediatrics, 2017, 5, 25.	0.9	13
33	Direct immersogeometric fluid flow analysis using B-rep CAD models. Computer Aided Geometric Design, 2016, 43, 143-158.	0.5	62
34	A Microstructurally Based Multi-Scale Constitutive Model of Active Myocardial Mechanics. , 2016, , 439-460.		6
35	Biomechanics simulations using cubic Hermite meshes with extraordinary nodes for isogeometric cardiac modeling. Computer Aided Geometric Design, 2016, 43, 27-38.	0.5	17
36	A multiscale model for the study of cardiac biomechanics in single-ventricle surgeries: a clinical case. Interface Focus, 2015, 5, 20140079.	1.5	16

#	Article	IF	Citations
37	Left Ventricular Diastolic and Systolic Material Property Estimation from Image Data. Lecture Notes in Computer Science, 2015, 8896, 63-73.	1.0	4
38	Novel Role for Vinculin in Ventricular Myocyte Mechanics and Dysfunction. Biophysical Journal, 2013, 104, 1623-1633.	0.2	30
39	Patient-specific models of cardiac biomechanics. Journal of Computational Physics, 2013, 244, 4-21.	1.9	160
40	A three-dimensional finite element model of human atrial anatomy: New methods for cubic Hermite meshes with extraordinary vertices. Medical Image Analysis, 2013, 17, 525-537.	7.0	42
41	Myofiber prestretch magnitude determines regional systolic function during ectopic activation in the tachycardia-induced failing canine heart. American Journal of Physiology - Heart and Circulatory Physiology, 2013, 305, H192-H202.	1.5	6
42	Multi-Scale Modeling of Patient-Specific Ventricular Geometry, Fiber Structure, and Biomechanics. Biophysical Journal, 2012, 102, 351a.	0.2	0
43	Computing the Hausdorff distance between NURBS surfaces using numerical iteration on the GPU. Graphical Models, 2012, 74, 255-264.	1.1	19
44	An atlas-based geometry pipeline for cardiac Hermite model construction and diffusion tensor reorientation. Medical Image Analysis, 2012, 16, 1130-1141.	7.0	39
45	Patient-specific modeling of dyssynchronous heart failure: A case study. Progress in Biophysics and Molecular Biology, 2011, 107, 147-155.	1.4	113
46	GPU-Accelerated Minimum Distance and Clearance Queries. IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 729-742.	2.9	15
47	Accurate GPU-accelerated surface integrals for moment computation. CAD Computer Aided Design, 2011, 43, 1284-1295.	1.4	13
48	GPU-accelerated Hausdorff distance computation between dynamic deformable NURBS surfaces. CAD Computer Aided Design, 2011, 43, 1370-1379.	1.4	20
49	Accurate moment computation using the GPU. , 2010, , .		1
50	Simulation and Optimization of the Water-Jet Cleaning Process. , 2009, , .		1
51	Accelerating geometric queries using the GPU. , 2009, , .		6
52	Optimized GPU evaluation of arbitrary degree NURBS curves and surfaces. CAD Computer Aided Design, 2009, 41, 971-980.	1.4	29
53	Performing Efficient NURBS Modeling Operations on the GPU. IEEE Transactions on Visualization and Computer Graphics, 2009, 15, 530-543.	2.9	24
54	Performing efficient NURBS modeling operations on the GPU. , 2008, , .		7

#	Article	IF	Citations
55	Direct evaluation of NURBS curves and surfaces on the GPU. , 2007, , .		20
56	Simultsonic: A Simulation Tool for Ultrasonic Inspection. AIP Conference Proceedings, 2006, , .	0.3	3
57	Analysis of Flow and Heat Transfer at a Finned Tube in Crossflow. , 2003, , 917.		2
58	Voronoi Cells of Non-general Position Spheres using the GPU. , 0, , .		0
59	Automated Construction of Layer-by-Layer Finite Element Sub-Models of Damaged Composites Based on NDE Data. , 0, , .		0