Jens Gravesen

List of Publications by Year
in descending order

54 papers	707 citations	623734 14 h-index	580821 25 g-index
55 all docs	55 docs citations	55 times ranked	542 citing authors

#	Article	IF	Citations
1	Isogeometric shape optimization of vibrating membranes. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 1343-1353.	6.6	90
2	Eigenstates of MÃ¶bius nanostructures including curvature effects. Physical Review A, 2005, 72, .	2.5	64
3	SchrÃ¶dinger problems for surfaces of revolutionâ€"the finite cylinder as a test example. Journal of Mathematical Physics, 2005, 46, 012107.	1.1	46
4	Discretizations in isogeometric analysis of Navierâ€"Stokes flow. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 3242-3253.	6.6	42
5	Isogeometric shape optimization in fluid mechanics. Structural and Multidisciplinary Optimization, 2013, 48, 909-925.	3.5	39
6	The Geometry of the Scroll Compressor. SIAM Review, 2001, 43, 113-126.	9.5	38
7	ISOGEOMETRIC SHAPE OPTIMIZATION FOR ELECTROMAGNETIC SCATTERING PROBLEMS. Progress in Electromagnetics Research B, 2012, 45, 117-146.	1.0	34
8	Curves and surfaces represented by polynomial support functions. Theoretical Computer Science, 2008, 392, 141-157.	0.9	32
9	On the sensitivities of multiple eigenvalues. Structural and Multidisciplinary Optimization, 2011, 44, 583-587.	3.5	27
10	On the topology of spaces of holomorphic maps. Acta Mathematica, 1989, 162, 247-286.	3.9	26
11	Adaptive subdivision and the length and energy of BÃ©zier curves. Computational Geometry: Theory and Applications, 1997, 8, 13-31.	0.5	23
12	On rationally supported surfaces. Computer Aided Geometric Design, 2008, 25, 320-331.	1.2	23
13	Quantum-Mechanical Particle Confined to Surfaces of Revolution â€" Truncated Cone and Elliptic Torus Case Studies. Physica Scripta, 2005, 72, 105-111.	2.5	22
14	Guide to Computational Geometry Processing. , 2012, , .		18
15	Constructing Invariant Fairness Measures for Surfaces. Advances in Computational Mathematics, 2002, 17, 67-88.	1.6	16
16	Quantum eigenstates of curved nanowire structures. Physica B: Condensed Matter, 2006, 371, 112-119.	2.7	14
17	Surfaces parametrized by the normals. Computing (Vienna/New York), 2007, 79, 175-183.	4.8	13
18	The Cut Locus of a Torus of Revolution. Asian Journal of Mathematics, 2005, 9, 103-120.	0.3	13

#	ARTICLE	IF	CITATIONS
19	The metric of colour space. Graphical Models, 2015, 82, 77-86.	2.4	12
20	On reducing computational effort in topology optimization: we can go at least this far!. Structural and Multidisciplinary Optimization, 2018, 58, 2481-2492.	3.5	10
21	Contaminant ingress into multizone buildings: An analytical state-space approach. Building Simulation, 2014, 7, 57-71.	5.6	9
22	Approximation by planar elastic curves. Advances in Computational Mathematics, 2017, 43, 25-43.	1.6	9
23	Planar Parametrization in Isogeometric Analysis. Lecture Notes in Computer Science, 2014, , 189-212.	1.3	9
24	Surfaces with Piecewise Linear Support Functions over Spherical Triangulations. Lecture Notes in Computer Science, 2007, , 42-63.	1.3	8
25	The geometry of the Moineau pump. Computer Aided Geometric Design, 2008, 25, 792-800.	1.2	7
26	Isogeometric analysis of sound propagation through laminar flow in 2-dimensional ducts. Computer Methods in Applied Mechanics and Engineering, 2015, 284, 1098-1119.	6.6	7
27	Modeling and optimization of a rotational symmetric spherical triboelectric generator. Nano Energy, 2022, 100, 107491.	16.0	7
28	Iso-geometric shape optimization of magnetic density separators. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2014, 33, 1416-1433.	0.9	6
29	Mӧbius Semiconductor Nanostructures and Deformation Potential Strain Effects. Journal of Nanoelectronics and Optoelectronics, 2011, 6, 68-75.	0.5	6
30	Loop groups and Yang-Mills theory in dimension two. Communications in Mathematical Physics, 1990, 127, 597-605.	2.2	5
31	Analytic theory of curvature effects for wave problems with general boundary conditions. Physical Review A, 2010, 81, .	2.5	5
32	Monge surfaces and planar geodesic foliations. Journal of Geometry, 2018, 109, 1.	0.4	5
33	The Fourâ€Band Spinâ€Less Kane Model in Curvilinear Coordinates. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800305.	2.4	4
34	On the Geometry of Nanowires and the Role of Torsion. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1800357.	2.4	3
35	Approximating Offsets of Surfaces by using the Support function Representation. Mathematics in Industry, 2008, , 719-723.	0.3	3
36	Strong curvature effects in Neumann wave problems. Journal of Mathematical Physics, 2012, 53, .	1.1	2

#	Article	IF	Citations
37	BÃ©zier curves that are close to elastica. CAD Computer Aided Design, 2018, 104, 36-44.	2.7	2
38	Complex structures in the Nash-Moser category. Annals of Global Analysis and Geometry, 1989, 7, 155-161.	0.6	1
39	Third Order Invariants of Surfaces. , 2005, , 193-211.		1
40	Acoustic waves in a medium bounded by curved surfaces. Journal of Sound and Vibration, 2006, 296, 46-58.	3.9	1
41	Electron states in curved quantum structures with varying radius. Superlattices and Microstructures, 2008, 43, 441-444.	3.1	1
42	Designing interactively with elastic splines. Computer Aided Geometric Design, 2018, 62, 181-191.	1.2	1
43	Quantum Eigenstates of Curved and Varying Cross-Sectional Waveguides. Applied Sciences (Switzerland), 2020, 10, 7240.	2.5	1
44	Differential Geometry Applied to Rings and MÃ¶bius Nanostructures. Nanoscience and Technology, 2014, , 409-435.	1.5	1
45	Catastrophe Theory and Caustics. SIAM Review, 1983, 25, 239-247.	9.5	0
46	A characterization of spheres, circles and cardioids. Archiv Der Mathematik, 1993, 60, 579-590.	0.5	0
47	Electronic structure of helically coiled carbon nanotubes. Materials Research Society Symposia Proceedings, 2005, 901, 1.	0.1	0
48	Electron conductance in curved quantum structures. Superlattices and Microstructures, 2010, 47, 202-206.	3.1	0
49	Effects of hydrostatic strain on eigenstates of M&#x00F6;bius strips. , 2011, , .		0
50	Guest Editor's Introduction: Special Section on the Joint Conference on Geometric Design and Solid and Physical Modeling (GDSPM). IEEE Transactions on Visualization and Computer Graphics, 2011, 17, 713-714.	4.4	0
51	Differential Geometry Applied to Rings and MÃ¶bius Nanostructures. Nanoscience and Technology, 2018, , 499-533.	1.5	0
52	Hot Blade Cuttings for the Building Industries. Mathematics in Industry, 2017, , 253-272.	0.3	0
53	Global Fulfilment of Curvature Constraints for Surfaces. CAD Computer Aided Design, 2021, , 103139.	2.7	0
54	Whitney C^infty-topologies and the Baire property.. Mathematica Scandinavica, 0, 52, 58.	0.2	0