Chun-Gang Zhu

List of Publications by Year
in descending order

73 papers	631 citations	759233 12 h-index	677142 22 g-index
74 all docs	74 docs citations	74 times ranked	270 citing authors

#	Article	IF	Citations
1	Parametric representation of a surface pencil with a common line of curvature. CAD Computer Aided Design, 2011, 43, 1110-1117.	2.7	67
2	Numerical solution of Burgers' equation by cubic B-spline quasi-interpolation. Applied Mathematics and Computation, 2009, 208, 260-272.	2.2	60
3	Numerical solution of Burgers–Fisher equation by cubic B-spline quasi-interpolation. Applied Mathematics and Computation, 2010, 216, 2679-2686.	2.2	57
4	An approach for designing a developable surface through a given line of curvature. CAD Computer Aided Design, 2013, 45, 621-627.	2.7	56
5	Progressive iterative approximation for regularized least square bivariate B-spline surface fitting. Journal of Computational and Applied Mathematics, 2018, 327, 175-187.	2.0	24
6	Design and G1 connection of developable surfaces through Bézier geodesics. Applied Mathematics and Computation, 2011, 218, 3199-3208.	2.2	23
7	High accuracy multiquadric quasi-interpolation. Applied Mathematical Modelling, 2011, 35, 2185-2195.	4.2	17
8	Self-intersections of rational Bézier curves. Graphical Models, 2014, 76, 312-320.	2.4	17
9	Constructing high-quality planar NURBS parameterization for isogeometric analysis by adjustment control points and weights. Journal of Computational and Applied Mathematics, 2021, 396, 113615.	2.0	17
10	Designing approximation minimal parametric surfaces with geodesics. Applied Mathematical Modelling, 2013, 37, 6415-6424.	4.2	15
11	Nöther-type theorem of piecewise algebraic curves*. Progress in Natural Science: Materials International, 2004, 14, 309-313.	4.4	14
12	Lagrange interpolation by bivariate splines on cross-cut partitions. Journal of Computational and Applied Mathematics, 2006, 195, 326-340.	2.0	13
13	Injectivity of NURBS curves. Journal of Computational and Applied Mathematics, 2016, 302, 129-138.	2.0	13
14	Functional splines with different degrees of smoothness and their applications. CAD Computer Aided Design, 2008, 40, 616-624.	2.7	12
15	Cayley–Bacharach theorem of piecewise algebraic curves. Journal of Computational and Applied Mathematics, 2004, 163, 269-276.	2.0	11
16	A numerical method for solving KdV equation with multilevel B-spline quasi-interpolation. Applicable Analysis, 2013, 92, 1682-1690.	1.3	11
17	Injectivity conditions of rational Bézier surfaces. Computers and Graphics, 2015, 51, 17-25.	2.5	11
18	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msup><mml:mrow><mml:mi>G</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></m continuity of four pieces of developable surfaces with Bézier boundaries. Journal of Computational and Applied Mathematics, 2018, 329, 164-172.	2.0	11

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19	Isogeometric analysis for trimmed CAD surfaces using multi-sided toric surface patches. Computer Aided Geometric Design, 2020, 79, 101847.	1.2	10
20	An improved algorithm for checking the injectivity of 2D toric surface patches. Computers and Mathematics With Applications, 2020, 79, 2973-2986.	2.7	10
21	Injectivity of 2D Toric B&#x0E9;zier Patches. , 2011, , .		9
22	Designing Developable C-Bézier Surface with Shape Parameters. Mathematics, 2020, 8, 402.	2.2	9
23	Piecewise algebraic varieties*. Progress in Natural Science: Materials International, 2004, 14, 568-572.	4.4	8
24	Toric degenerations of Bézier patches. ACM Transactions on Graphics, 2011, 30, 1-10.	7.2	8
25	Penalty function-based volumetric parameterization method for isogeometric analysis. Computer Aided Geometric Design, 2022, 94, 102081.	1.2	8
26	A multilevel univariate cubic spline quasi-interpolation and application to numerical integration. Mathematical Methods in the Applied Sciences, 2010, 33, 1578-1586.	2.3	7
27	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:msup><mml:mrow><mml:mi>G</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow></mml:mrow> continuity between toric surface patches. Computer Aided Geometric Design, 2015, 35-36, 255-267.	1.2	7
28	De Casteljau Algorithm and Degree Elevation of Toric Surface Patches. Journal of Systems Science and Complexity, 2021, 34, 21-46.	2.8	7
29	Least Squares Fitting of Piecewise Algebraic Curves. Mathematical Problems in Engineering, 2007, 2007, 1-11.	1.1	6
30	Nöther-type theorem of piecewise algebraic curves on quasi-cross-cut partition. Science in China Series A: Mathematics, 2009, 52, 701-708.	0.5	6
31	Geometric conditions of non-self-intersecting NURBS surfaces. Applied Mathematics and Computation, 2017, 310, 89-96.	2.2	6
32	Construction of triharmonic Bézier surfaces from boundary conditions. Journal of Computational and Applied Mathematics, 2020, 377, 112906.	2.0	6
33	Curvature-based <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e681" altimg="si4.svg"><mml:mi>R</mml:mi></mml:math>-Adaptive Planar NURBS Parameterization Method for Isogeometric Analysis Using Bi-Level Approach. CAD Computer Aided Design, 2022, 150, 103305.	2.7	6
34	Degenerations of toric ideals and toric varieties. Journal of Mathematical Analysis and Applications, 2012, 386, 613-618.	1.0	5
35	Total positivity of a kind of generalized Toric-Bernstein basis. Linear Algebra and Its Applications, 2019, 579, 449-462.	0.9	5
36	A generalization of surface family with common line of curvature. Applied Mathematics and Computation, 2013, 219, 9500-9507.	2.2	4

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37	Numerical Solution of High-Dimensional Shockwave Equations by Bivariate Multi-Quadric Quasi-Interpolation. Mathematics, 2019, 7, 734.	2.2	4
38	Cubic B-spline quasi-interpolation and an application to numerical solution of generalized Burgers-Huxley equation. Advances in Mechanical Engineering, 2020, 12, 168781402097106.	1.6	4
39	Conditions for injectivity of toric volumes with arbitrary positive weights. Computers and Graphics, 2021, 97, 88-98.	2.5	4
40	Nöther-type theorem of piecewise algebraic curves on triangulation. Science in China Series A: Mathematics, 2007, 50, 1227-1232.	0.5	3
41	Multivariate spline approximation of the signed distance function. Journal of Computational and Applied Mathematics, 2014, 265, 276-289.	2.0	3
42	On the limits of non-uniform rational B-spline surfaces with varying weights. Advances in Mechanical Engineering, 2017, 9, 168781401770054.	1.6	3
43	Scattered data interpolation based upon bivariate recursive polynomials. Journal of Computational and Applied Mathematics, 2018, 329, 223-243.	2.0	3
44	The number of regular control surfaces of toric patch. Journal of Computational and Applied Mathematics, 2018, 329, 280-293.	2.0	3
45	Curvature continuity conditions between adjacent toric surface patches. Computer Graphics Forum, 2018, 37, 469-477.	3.0	3
46	Geometric conditions for injectivity of 3D Bézier volumes. AIMS Mathematics, 2021, 6, 11974-11988.	1.6	3
47	On spline quasi-interpolation in cubic spline space <italic>S</italic><sub>3</sub><sup>1,2</sup>... Scientia Sinica Mathematica, 2014, 44, 769-778.		
48	h-Refinement method for toric parameterization of planar multi-sided computational domain in isogeometric analysis. Computer Aided Geometric Design, 2022, 93, 102065.	1.2	3
49	The maximum number and its distribution of singular points for parametric piecewise algebraic curves. Journal of Computational and Applied Mathematics, 2018, 329, 322-330.	2.0	2
50	Degenerations of NURBS curves while all of weights approaching infinity. Japan Journal of Industrial and Applied Mathematics, 2018, 35, 787-816.	0.9	2
51	Curve and surface construction based on the generalized toric-Bernstein basis functions. Open Mathematics, 2020, 18, 36-56.	1.0	2
52	Construction of the spacelike constant angle surface family in Minkowski 3-space. AIMS Mathematics, 2020, 5, 6341-6354.	1.6	2
53	The correspondence between multivariate spline ideals and piecewise algebraic varieties. Journal of Computational and Applied Mathematics, 2011, 236, 793-800.	2.0	1
54	Multivariate splines and hyperplane arrangements. Journal of Computational and Applied Mathematics, 2011, 236, 775-781.	2.0	1

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55	Algebra-geometry of piecewise algebraic varieties. Acta Mathematica Sinica, English Series, 2012, 28, 1973-1980.	0.6	1
56	Spacelike developable surfaces through a common line of curvature in Minkowski 3-space. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2015, 9, JAMDSM0050-JAMDSM0050.	0.7	1
57	The classification of bi-quintic parametric polynomial minimal surfaces. Applied Mathematics, 2017, 32, 14-26.	1.0	1
58	Construction of B-spline surface from cubic B-spline asymptotic quadrilateral. Journal of Advanced Mechanical Design, Systems and Manufacturing, 2017, 11, JAMDSM0044-JAMDSM0044.	0.7	1
59	Quasi-Interpolation Operators for Bivariate Quintic Spline Spaces and Their Applications. Mathematical and Computational Applications, 2017, 22, 10.	1.3	1
60	q-Ferguson curves. Advances in Mechanical Engineering, 2018, 10, 168781401880929.	1.6	1
61	Geometric interpolants with different degrees of smoothness. International Journal of Computer Mathematics, 2010, 87, 1907-1917.	1.8	0
62	A note on multi-step difference schemes. Journal of Computational and Applied Mathematics, 2011, 236, 647-652.	2.0	0
63	Fitting C^1 Surfaces to Scattered Data with $S^1_2(\triangle^{(2)}_{m,n})$. Journal of Computational Mathematics, 2011, 29, 396-414.	0.4	0
64	A family of bivariate rational Bernstein operators. Applied Mathematics and Computation, 2015, 258, 162-171.	2.2	0
65	Approximation of minimal toric Bézier patch. Advances in Mechanical Engineering, 2016, 8, 168781401665466.	1.6	0
66	Degenerations of rational Bézier surface with weights in the form of exponential function. Applied Mathematics, 2017, 32, 164-182.	1.0	0
67	The Number of Regular Control Curves of NURBS Curve. , 2018, , .		0
68	B-Spline Solutions of General Euler-Lagrange Equations. Mathematics, 2019, 7, 365.	2.2	0
69	3D grasp saliency analysis via deep shape correspondence. Computer Aided Geometric Design, 2020, 81, 101901.	1.2	0
70	Generating bicubic B-spline surfaces by a sixth order PDE. AIMS Mathematics, 2021, 6, 1677-1694.	1.6	0
71	Improved algorithms for determining the injectivity of 2D and 3D rational Bézier curves. Electronic Research Archive, 2022, 30, 1799-1812.	0.9	0
72	High accuracy B-spline quasi-interpolants and applications in numerical analysis. Applicable Analysis, 0, , 1-20.	1.3	0

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73	Algorithms for computing the approximation of offsets of toric Bézier curves. Computational and Applied Mathematics, 2022, 41, .	2.2	0