

Alexander G Belyaev

List of Publications by Year in descending order

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73
papers

2,822
citations

331670

21
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243625

44
g-index

74
all docs

74
docs citations

74
times ranked

1458
citing authors

#	ARTICLE	IF	CITATIONS
1	Multi-level partition of unity implicits. ACM Transactions on Graphics, 2003, 22, 463-470.	7.2	493
2	Ridge-valley lines on meshes via implicit surface fitting. ACM Transactions on Graphics, 2004, 23, 609-612.	7.2	281
3	Multi-level partition of unity implicits. , 2005, , .		207
4	Mesh regularization and adaptive smoothing. CAD Computer Aided Design, 2001, 33, 789-800.	2.7	146
5	Image Compression with Anisotropic Diffusion. Journal of Mathematical Imaging and Vision, 2008, 31, 255-269.	1.3	124
6	Detection of Salient Curvature Features on Polygonal Surfaces. Computer Graphics Forum, 2001, 20, 385-392.	3.0	116
7	Fast and robust detection of crest lines on meshes. , 2005, , .		110
8	Multi-level partition of unity implicits. , 2003, , .		107
9	3D scattered data interpolation and approximation with multilevel compactly supported RBFs. Graphical Models, 2005, 67, 150-165.	2.4	90
10	Ridge-valley lines on meshes via implicit surface fitting. , 2004, , .		64
11	Implicit Image Differentiation and Filtering with Applications to Image Sharpening. SIAM Journal on Imaging Sciences, 2013, 6, 660-679.	2.2	62
12	An integrating approach to meshing scattered point data. , 2005, , .		52
13	Asymptotic behavior of a solution to a boundary value problem in a perforated domain with oscillating boundary. Siberian Mathematical Journal, 1998, 39, 621-644.	0.6	46
14	Automatic Generation of Bas-reliefs from 3D Shapes. , 2007, , .		45
15	Towards PDE-Based Image Compression. Lecture Notes in Computer Science, 2005, , 37-48.	1.3	42
16	Skeleton-based Variational Mesh Deformations. Computer Graphics Forum, 2007, 26, 255-264.	3.0	42
17	Adaptive feature-preserving non-local denoising of static and time-varying range data. CAD Computer Aided Design, 2008, 40, 701-707.	2.7	42
18	Fast, robust, and faithful methods for detecting crest lines on meshes. Computer Aided Geometric Design, 2008, 25, 545-560.	1.2	39

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19	Dual/Primal mesh optimization for polygonized implicit surfaces. , 2002, , .		38
20	A Skeleton-based Approach for Detection of Perceptually Salient Features on Polygonal Surfaces. Computer Graphics Forum, 2002, 21, 689-700.	3.0	38
21	Free-form skeleton-driven mesh deformations. , 2003, , .		38
22	Dynamic Distance-Based Shape Features for Gait Recognition. Journal of Mathematical Imaging and Vision, 2014, 50, 314-326.	1.3	35
23	On Variational and PDE-Based Distance Function Approximations. Computer Graphics Forum, 2015, 34, 104-118.	3.0	35
24	Fast Gauss Bilateral Filtering. Computer Graphics Forum, 2010, 29, 60-74.	3.0	30
25	Sparse surface reconstruction with adaptive partition of unity and radial basis functions. Graphical Models, 2006, 68, 15-24.	2.4	29
26	Effective Membrane Permeability: Estimates and Low Concentration Asymptotics. SIAM Journal on Applied Mathematics, 1999, 60, 84-108.	1.8	28
27	Feature sensitive bas relief generation. , 2009, , .		28
28	Computer Assisted Relief Generation—A Survey. Computer Graphics Forum, 2012, 31, 2363-2377.	3.0	28
29	Dynamic mesh optimization for polygonized implicit surfaces with sharp features. Visual Computer, 2003, 19, 115-126.	3.5	24
30	On visual complexity of 3D shapes. Computers and Graphics, 2011, 35, 580-585.	2.5	22
31	Feature preserving depth compression of range images. , 2007, , .		21
32	Real-time Generation of Digital Bas-Reliefs. Computer-Aided Design and Applications, 2010, 7, 465-478.	0.6	20
33	Fast and Faithful Geometric Algorithm for Detecting Crest Lines on Meshes. , 2007, , .		19
34	Adaptive Curvature-Guided Image Filtering for Structure + Texture Image Decomposition. IEEE Transactions on Image Processing, 2018, 27, 5192-5203.	9.8	19
35	Signed -distance fields. CAD Computer Aided Design, 2013, 45, 523-528.	2.7	18
36	Mesh Optimization for Polygonized Isosurfaces. Computer Graphics Forum, 2001, 20, 368-376.	3.0	17

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37	RIDGES AND RAVINES: A SINGULARITY APPROACH. International Journal of Shape Modeling, 1994, 01, 1-11.	0.2	16
38	Error-guided adaptive Fourier-based surface reconstruction. CAD Computer Aided Design, 2007, 39, 421-426.	2.7	13
39	Exact and interpolatory quadratures for curvature tensor estimation. Computer Aided Geometric Design, 2007, 24, 443-463.	1.2	13
40	Dual-Primal Mesh Optimization for Polygonized Implicit Surfaces With Sharp Features. Journal of Computing and Information Science in Engineering, 2002, 2, 277-284.	2.7	12
41	On covariate factor detection and removal for robust gait recognition. Machine Vision and Applications, 2015, 26, 661-674.	2.7	12
42	DETECTION OF RIDGES AND RAVINES BASED ON CAUSTIC SINGULARITIES. International Journal of Shape Modeling, 1994, 01, 13-22.	0.2	11
43	Feature-preserving non-local denoising of static and time-varying range data. , 2007, , .		11
44	On stochastic methods for surface reconstruction. Visual Computer, 2007, 23, 381-395.	3.5	10
45	p-Laplace diffusion for distance function estimation, optimal transport approximation, and image enhancement. Computer Aided Geometric Design, 2018, 67, 1-20.	1.2	10
46	<title>Detection of ridges and ravines on range images and triangular meshes</title>. , 2000, 4117, 146.		9
47	Asymptotic analysis of discrete normals and curvatures of polylines. , 2005, , .		9
48	A MOVING MESH APPROACH TO STRETCH-MINIMIZING MESH PARAMETERIZATION. International Journal of Shape Modeling, 2005, 11, 25-42.	0.2	8
49	A composite approach to meshing scattered data. Graphical Models, 2006, 68, 255-267.	2.4	8
50	<title>Ridges and ravines on a surface and segmentation of range images</title>. , 1997, 3168, 106.		7
51	<title>Nonlinear diffusion of normals for crease enhancement</title>. , 2001, , .		7
52	Shape Interrogation. Mathematics and Visualization, 2008, , 1-51.	0.6	7
53	Multi-scale and Adaptive CS-RBFs for Shape Reconstruction from Clouds of Points. , 2005, , 143-154.		6
54	An ADMM-based scheme for distance function approximation. Numerical Algorithms, 2020, 84, 983-996.	1.9	6

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55	Two iterative methods for reverse image filtering. Signal, Image and Video Processing, 2021, 15, 1565-1573.	2.7	4
56	On Implicit Image Derivatives and Their Applications. , 2011, , .		4
57	Automatic 2D Shape Orientation by Example. , 2007, , .		3
58	On computing best fly. , 2007, , .		3
59	On transfinite Gordon-Wixom interpolation schemes and their extensions. Computers and Graphics, 2015, 51, 74-80.	2.5	3
60	Improving Robustness and Precision in GEI + HOG Action Recognition. Lecture Notes in Computer Science, 2013, , 119-128.	1.3	3
61	Towards Robust Gait Recognition. Lecture Notes in Computer Science, 2013, , 523-531.	1.3	3
62	Reverse image filtering with clean and noisy filters. Signal, Image and Video Processing, 2023, 17, 333-341.	2.7	3
63	Counting Parallel Segments: New Variants of Pick's Area Theorem. Mathematical Intelligencer, 2019, 41, 1-7.	0.2	2
64	<title>Ridges, ravines, and related point features on a surface</title>. , 1995, 2573, 84.		1
65	Discrete spherical means of directional derivatives and Veronese maps. Journal of Geometry and Physics, 2012, 62, 124-136.	1.4	1
66	On Variational and PDE-Based Methods for Accurate Distance Function Estimation. Computational Mathematics and Mathematical Physics, 2019, 59, 2009-2016.	0.8	1
67	<title>Qualitative and asymptotic properties of curvature-driven silhouette deformations</title>. , 1997, , .		0
68	Feature-preserving denoising of time-varying range data. , 2006, , .		0
69	Möbius-invariant curve and surface energies and their applications. Science China Information Sciences, 2013, 56, 1-10.	4.3	0
70	On modified Gordon-Wixom interpolation schemes and their applications to nonlinear and exterior domain problems. Numerical Algorithms, 2018, 77, 691-708.	1.9	0
71	Polygon Offsetting with Squares Erected on Its Sides. Mathematical Intelligencer, 2020, 42, 38-41.	0.2	0
72	Adaptive Fourier-Based Surface Reconstruction. Lecture Notes in Computer Science, 2006, , 34-44.	1.3	0

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73	A Variational Method for Accurate Distance Function Estimation. Lecture Notes in Computational Science and Engineering, 2019, , 175-181.	0.3	0