Anthony Yezzi

List of Publications by Year
in descending order

96 papers	4,011 citations	159585 30 h-index	123424 61 g-index
98 all docs	98 docs citations	98 times ranked	3125 citing authors

#	Article	IF	Citations
1	A shape-based approach to the segmentation of medical imagery using level sets. IEEE Transactions on Medical Imaging, 2003, 22, 137-154.	8.9	735
2	Conformal curvature flows: From phase transitions to active vision. Archive for Rational Mechanics and Analysis, 1996, 134, 275-301.	2.4	366
3	A Fully Global Approach to Image Segmentation via Coupled Curve Evolution Equations. Journal of Visual Communication and Image Representation, 2002, 13, 195-216.	2.8	272
4	A nonparametric statistical method for image segmentation using information theory and curve evolution. IEEE Transactions on Image Processing, 2005, 14, 1486-1502.	9.8	249
5	Vessels as 4-D Curves: Global Minimal 4-D Paths to Extract 3-D Tubular Surfaces and Centerlines. IEEE Transactions on Medical Imaging, 2007, 26, 1213-1223.	8.9	170
6	Tracking Deforming Objects Using Particle Filtering for Geometric Active Contours. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1470-1475.	13.9	156
7	Local or Global Minima: Flexible Dual-Front Active Contours. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1-14.	13.9	141
8	Sobolev Active Contours. International Journal of Computer Vision, 2007, 73, 345-366.	15.6	139
9	Vessel Segmentation Using a Shape Driven Flow. Lecture Notes in Computer Science, 2004, , 51-59.	1.3	88
10	Detecting Curves with Unknown Endpoints and Arbitrary Topology Using Minimal Paths. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 1952-1965.	13.9	87
11	Stereoscopic Segmentation. International Journal of Computer Vision, 2003, 53, 31-43.	15.6	81
12	Spaceâ€“time measurements of oceanic sea states. Ocean Modelling, 2013, 70, 103-115.	2.4	71
13	Hybrid geodesic region-based curve evolutions for image segmentation. , 2007, , .		66
14	Coarse-to-Fine Segmentation and Tracking Using Sobolev Active Contours. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2008, 30, 851-864.	13.9	66
15	A New Geometric Metric in the Space of Curves, and Applications to Tracking Deforming Objects by Prediction and Filtering. SIAM Journal on Imaging Sciences, 2011, 4, 109-145.	2.2	65
16	Vessel Tractography Using an Intensity Based Tensor Model With Branch Detection. IEEE Transactions on Medical Imaging, 2013, 32, 348-363.	8.9	60
17	Information-Theoretic Active Polygons for Unsupervised Texture Segmentation. International Journal of Computer Vision, 2005, 62, 199-220.	15.6	57
18	A Compact Formula for the Derivative of a 3-D Rotation in Exponential Coordinates. Journal of Mathematical Imaging and Vision, 2015, 51, 378-384.	1.3	57

#	Article	IF	Citations
19	Deep Learning Wholeâ€Gland and Zonal Prostate Segmentation on a Public <scp>MRI</scp> Dataset. Journal of Magnetic Resonance Imaging, 2021, 54, 452-459.	3.4	55
20	A Variational Stereo Method for the Three-Dimensional Reconstruction of Ocean Waves. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4445-4457.	6.3	46
21	Deep Learning-Based Methods for Prostate Segmentation in Magnetic Resonance Imaging. Applied Sciences (Switzerland), 2021, 11, 782.	2.5	46
22	A Variational Approach to Problems in Calibration of Multiple Cameras. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2007, 29, 1322-1338.	13.9	41
23	New Possibilities with Sobolev Active Contours. International Journal of Computer Vision, 2009, 84, 113-129.	15.6	41
24	Deep learning approach for the segmentation of aneurysmal ascending aorta. Biomedical Engineering Letters, 2021, 11, 15-24.	4.1	40
25	3-D Reconstruction of Shaded Objects from Multiple Images Under Unknown Illumination. International Journal of Computer Vision, 2008, 76, 245-256.	15.6	39
26	Automatic Segmentation of the Left Atrium From MR Images via Variational Region Growing With a Moments-Based Shape Prior. IEEE Transactions on Image Processing, 2013, 22, 5111-5122.	9.8	37
27	Active contour algorithm with discriminant analysis for delineating tumors in positron emission tomography. Artificial Intelligence in Medicine, 2019, 94, 67-78.	6.5	36
28	K-nearest neighbor driving active contours to delineate biological tumor volumes. Engineering Applications of Artificial Intelligence, 2019, 81, 133-144.	8.1	35
29	Performance of Radiomics Features in the Quantification of Idiopathic Pulmonary Fibrosis from HRCT. Diagnostics, 2020, 10, 306.	2.6	35
30	Robust 3D Pose Estimation and Efficient 2D Region-Based Segmentation from a 3D Shape Prior. Lecture Notes in Computer Science, 2008, , 169-182.	1.3	35
31	Automating the crack map detection process for machine operated crack sealer. Automation in Construction, 2013, 31, 10-18.	9.8	34
32	Lung Segmentation on High-Resolution Computerized Tomography Images Using Deep Learning: A Preliminary Step for Radiomics Studies. Journal of Imaging, 2020, 6, 125.	3.0	31
33	Development of a new fully three-dimensional methodology for tumours delineation in functional images. Computers in Biology and Medicine, 2020, 120, 103701.	7.0	31
34	Deform PF-MT: Particle Filter With Mode Tracker for Tracking Nonaffine Contour Deformations. IEEE Transactions on Image Processing, 2010, 19, 841-857.	9.8	30
35	Global Regularizing Flows With Topology Preservation for Active Contours and Polygons. IEEE Transactions on Image Processing, 2007, 16, 803-812.	9.8	28
36	A smart and operator independent system to delineate tumours in Positron Emission Tomography scans. Computers in Biology and Medicine, 2018, 102, 1-15.	7.0	26

#	Article	IF	Citations
37	A Geometric Approach to Joint 2D Region-Based Segmentation and 3D Pose Estimation Using a 3D Shape Prior. SIAM Journal on Imaging Sciences, 2010, 3, 110-132.	2.2	25
38	3D Multi-branch Tubular Surface and Centerline Extraction with 4D Iterative Key Points. Lecture Notes in Computer Science, 2009, 12, 1042-1050.	1.3	25
39	Automatic Delineation of the Myocardial Wall From CT Images Via Shape Segmentation and Variational Region Growing. IEEE Transactions on Biomedical Engineering, 2013, 60, 2887-2895.	4.2	24
40	Tissue Classification to Support Local Active Delineation of Brain Tumors. Communications in Computer and Information Science, 2020, , 3-14.	0.5	23
41	3D Brain Segmentation Using Dual-Front Active Contours with Optional User Interaction. International Journal of Biomedical Imaging, 2006, 2006, 1-17.	3.9	22
42	Stochastic differential equations and geometric flows. IEEE Transactions on Image Processing, 2002, 11, 1405-1416.	9.8	21
43	A Nonrigid Kernel-Based Framework for 2D-3D Pose Estimation and 2D Image Segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2011, 33, 1098-1115.	13.9	21
44	Non-rigid 2D-3D pose estimation and 2D image segmentation. , 2009, , .		19
45	Euler characteristics of oceanic sea states. Mathematics and Computers in Simulation, 2012, 82, 1102-1111.	4.4	19
46	Multitask 3D CBCTâ€toâ€CT translation and organsâ€atâ€risk segmentation using physicsâ€based data augmentation. Medical Physics, 2021, 48, 5130-5141.	3.0	19
47	Fast incorporation of optical flow into active polygons. IEEE Transactions on Image Processing, 2005, 14, 745-759.	9.8	18
48	Wave Statistics and Spectra via a Variational Wave Acquisition Stereo System. , 2008, , .		13
49	Tracking deforming objects by filtering and prediction in the space of curves. , 2009, , .		12
50	Efficient Foraging Strategies in Multi-Agent Systems Through Curve Evolutions. IEEE Transactions on Automatic Control, 2014, 59, 1036-1041.	5.7	11
51	Accelerated Variational PDEs for Efficient Solution of Regularized Inversion Problems. Journal of Mathematical Imaging and Vision, 2020, 62, 10-36.	1.3	11
52	A regions of confidence based approach to enhance segmentation with shape priors. , 2010, 7533, .		10
53	A Complete System for Automatic Extraction of Left Ventricular Myocardium From CT Images Using Shape Segmentation and Contour Evolution. IEEE Transactions on Image Processing, 2014, 23, 1340-1351.	9.8	10
54	Coverage Control of Mobile Robots With Different Maximum Speeds for Time-Sensitive Applications. IEEE Robotics and Automation Letters, 2022, 7, 3001-3007.	5.1	10

#	Article	IF	Citations
55	Localized principal component analysis based curve evolution: A divide and conquer approach. , 2011, 2011, 1981-1986.		8
56	Variational Stereo Imaging of Oceanic Waves With Statistical Constraints. IEEE Transactions on Image Processing, 2013, 22, 4211-4223.	9.8	6
57	Automatic detection of left and right ventricles from CTA enables efficient alignment of anatomy with myocardial perfusion data. Journal of Nuclear Cardiology, 2014, 21, 96-108.	2.1	6
58	PDE acceleration: a convergence rate analysis and applications to obstacle problems. Research in Mathematical Sciences, 2019, 6, 1.	1.0	6
59	Joint Brain Parametric -Map Segmentation and RF Inhomogeneity Calibration. International Journal of Biomedical Imaging, 2009, 2009, 1-14.	3.9	5
60	Tracking Using Motion Estimation With Physically Motivated Inter-Region Constraints. IEEE Transactions on Medical Imaging, 2014, 33, 1875-1889.	8.9	5
61	Local or Global Minima: Flexible Dual-Front Active Contours. Lecture Notes in Computer Science, 2005, , 356-366.	1.3	5
62	Harmonic Embeddings for Linear Shape Analysis. Journal of Mathematical Imaging and Vision, 2006, 25, 341-352.	1.3	4
63	Automatic segmentation of the left atrium from MRI images using salient feature and contour evolution. , 2012, 2012, 3211-4.		4
64	The Mumford-Shah Functional: From Segmentation to Stereo. The IMA Volumes in Mathematics and Its Applications, 2003, , 125-147.	0.5	4
65	Visual tracking, active vision, and gradient flows. , 1998, , 183-194.		3
66	Symmetric Fast Marching Schemes for Better Numerical Isotropy. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 2298-2304.	13.9	3
67	4D Active Surfaces for Cardiac Analysis. Lecture Notes in Computer Science, 2002, , 667-673.	1.3	3
68	Hyperspectral Imaging Based Persistent Surveillance. , 2008, , .		2
69	Brain MRI T<inf>1</inf>-Map and T<inf>1</inf>-weighted image segmentation in a variational framework. , 2009, , .		2
70	Biologically motivated shape optimization of foraging fronts. , 2011, , .		2
71	Robust image registration with global intensity transformation. , 2015, , .		2
72	Non-rigid 2D-3D pose estimation and 2D image segmentation. , 2009, , .		2

#	Article	IF	Citations
73	Curve Shortening and Interacting Particle Systems. Modeling and Simulation in Science, Engineering and Technology, 2006, , 303-311.	0.6	2
74	Weak Statistical Constraints for Variational Stereo Imaging of Oceanic Waves. Lecture Notes in Computer Science, 2012, , 520-531.	1.3	2
75	Integrated 3D Anatomical Model for Automatic Myocardial Segmentation in Cardiac CT Imagery. Lecture Notes in Computational Vision and Biomechanics, 2018, , 1115-1124.	0.5	2
76	Accelerated Optimization in the PDE Framework Formulations for the Active Contour Case. SIAM Journal on Imaging Sciences, 2020, 13, 2029-2062.	2.2	2
77	TAC: Thresholding active contours. , 2008, , .		1
78	Optimization of foraging multi-agent system front: A flux-based curve evolution method. , 2011, , .		1
79	Translation, Scale, and Deformation Weighted Polar Active Contours. Journal of Mathematical Imaging and Vision, 2012, 44, 354-365.	1.3	1
80	SHAPE ADAPTIVE ACCELERATED PARAMETER OPTIMIZATION. , 2018, , .		1
81	PDE Acceleration for Active Contours. , 2019, , .		1
82	Dependently Coupled Principal Component Analysis for Bivariate Inversion Problems. , 2021, 2020, .		1
83	Directionally Paired Principal Component Analysis for Bivariate Estimation Problems. , 2021, 2020, .		1
84	Clinically viable myocardial CCTA segmentation for measuring vessel-specific myocardial blood flow from dynamic PET/CCTA hybrid fusion. European Journal of Hybrid Imaging, 2022, 6, 4.	1.5	1
85	Accelerated Optimization in the PDE Framework: Formulations for the Manifold of Diffeomorphisms. SIAM Journal on Imaging Sciences, 2022, 15, 324-366.	2.2	1
86	Visual Tracking and Object Recognition. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2001, 34, 1539-1542.	0.4	0
87	3D Topology Preserving Flows for Viewpoint-Based Cortical Unfolding. , 2007, , .		0
88	Automatic Pixel Geo-Registration for Aerial Systems: An Integrated Approach. , 2008, , .		0
89	Erratum to "Detecting Curves with Unknown Endpoints and Arbitary Topology Using Minimal Paths". IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, web-web.	13.9	0
90	Developing a Geometric Deformable Model for Radar Shape Inversion. , 2018, , .		0

#	Article	IF	Citations
91	Verifying the Causes of Adversarial Examples. , 2021, , .		0
92	Multiple Object Tracking via Prediction and Filtering with a Sobolev-Type Metric on Curves. Lecture Notes in Computer Science, 2012, , 143-152.	1.3	0
93	Differential Invariants and Curvature Flows in Active Vision. European Consortium for Mathematics in Industry, 1997, , 196-213.	0.4	0
94	Gradients, Curvature, and Visual Tracking. , 1998, , 375-390.		0
95	An Interactive Control Approach to 3D Shape Reconstruction. , 2020, , .		0
96	Radar-Based Shape and Reflectivity Reconstruction Using Active Surfaces and the Level Set Method. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, , 1-1.	13.9	0