Luminita A Vese

List of Publications by Year
in descending order

65 papers	**6,952** citations	257450 **24** h-index	206112 **48** g-index
67 all docs	**67** docs citations	**67** times ranked	**4004** citing authors

#	Article	IF	Citations
1	A Multiphase Level Set Framework for Image Segmentation Using the Mumford and Shah Model. International Journal of Computer Vision, 2002, 50, 271-293.	15.6	2,060
2	Simultaneous structure and texture image inpainting. IEEE Transactions on Image Processing, 2003, 12, 882-889.	9.8	790
3	Active Contours without Edges for Vector-Valued Images. Journal of Visual Communication and Image Representation, 2000, 11, 130-141.	2.8	609
4	Image Decomposition and Restoration Using Total Variation Minimization and theH1. Multiscale Modeling and Simulation, 2003, 1, 349-370.	1.6	563
5	Modeling Textures with Total Variation Minimization and Oscillating Patterns in Image Processing. Journal of Scientific Computing, 2003, 19, 553-572.	2.3	510
6	An Active Contour Model without Edges. Lecture Notes in Computer Science, 1999, , 141-151.	1.3	300
7	A Variational Method in Image Recovery. SIAM Journal on Numerical Analysis, 1997, 34, 1948-1979.	2.3	256
8	Fast Cartoon + Texture Image Filters. IEEE Transactions on Image Processing, 2010, 19, 1978-1986.	9.8	172
9	A Multiscale Image Representation Using Hierarchical (BV,L2) Decompositions. Multiscale Modeling and Simulation, 2004, 2, 554-579.	1.6	153
10	Image Denoising and Decomposition with Total Variation Minimization and Oscillatory Functions. Journal of Mathematical Imaging and Vision, 2004, 20, 7-18.	1.3	138
11	A Study in the BV Space of a Denoising--Deblurring Variational Problem. Applied Mathematics and Optimization, 2001, 44, 131-161.	1.6	115
12	Iteratively solving linear inverse problems under general convex constraints. Inverse Problems and Imaging, 2007, 1, 29-46.	1.1	104
13	Nonlocal Mumford-Shah Regularizers for Color Image Restoration. IEEE Transactions on Image Processing, 2011, 20, 1583-1598.	9.8	102
14	Segmentation under geometrical conditions using geodesic active contours and interpolation using level set methods. Numerical Algorithms, 2005, 39, 155-173.	1.9	90
15	Numerical Methods forp-Harmonic Flows and Applications to Image Processing. SIAM Journal on Numerical Analysis, 2002, 40, 2085-2104.	2.3	86
16	Image segmentation using a multilayer level-set approach. Computing and Visualization in Science, 2009, 12, 267-285.	1.2	84
17	Image Restoration and Decomposition via Bounded Total Variation and Negative Hilbert-Sobolev Spaces. Applied Mathematics and Optimization, 2008, 58, 167-193.	1.6	74
18	Image Decomposition Using Total Variation and div(BMO). Multiscale Modeling and Simulation, 2005, 4, 390-423.	1.6	66

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19	Image decompositions using bounded variation and generalized homogeneous Besov spaces. Applied and Computational Harmonic Analysis, 2007, 23, 25-56.	2.2	55
20	Self-Repelling Snakes for Topology-Preserving Segmentation Models. IEEE Transactions on Image Processing, 2008, 17, 767-779.	9.8	52
21	Energy Minimization Based Segmentation and Denoising Using a Multilayer Level Set Approach. Lecture Notes in Computer Science, 2005, , 439-455.	1.3	51
22	A combined segmentation and registration framework with a nonlinear elasticity smoother. Computer Vision and Image Understanding, 2011, 115, 1689-1709.	4.7	49
23	Multiscale hierarchical decomposition of images with applications to deblurring, denoising, and segmentation. Communications in Mathematical Sciences, 2008, 6, 281-307.	1.0	46
24	Mathematical Modeling of Textures: Application to Color Image Decomposition with a Projected Gradient Algorithm. Journal of Mathematical Imaging and Vision, 2010, 37, 232-248.	1.3	41
25	Multiphase Object Detection and Image Segmentation. , 2003, , 175-194.		30
26	Image recovery using functions of bounded variation and Sobolev spaces of negative differentiability. Inverse Problems and Imaging, 2009, 3, 43-68.	1.1	26
27	A method to convexify functions via curve evolution. Communications in Partial Differential Equations, 1999, 24, 1573-1591.	2.2	21
28	The generation of tetrahedral mesh models for neuroanatomical MRI. NeuroImage, 2011, 55, 153-164.	4.2	21
29	Efficient Deconvolution and Super-Resolution Methods in Microwave Imagery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4273-4283.	4.9	21
30	Mumford and Shah Model and its Applications to Image Segmentation andImage Restoration. , 2011, , 1095-1157.		20
31	Gene Expression Data to Mouse Atlas Registration Using a Nonlinear Elasticity Smoother and Landmark Points Constraints. Journal of Scientific Computing, 2012, 50, 586-609.	2.3	18
32	Sobolev gradients and joint variational image segmentation, denoising, and deblurring. Proceedings of SPIE, 2009, , .	0.8	17
33	A Hybrid Architecture for Compressive Sensing 3-D CT Reconstruction. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2012, 2, 616-625.	3.6	17
34	Platform characterization for Domain-Specific Computing. , 2012, , .		15
35	Projected Gradient Based Color Image Decomposition. Lecture Notes in Computer Science, 2009, , 295-306.	1.3	15
36	Modeling Oscillatory Components with The Homogeneous Spaces $BM^{-\alpha}$ and $W^{-\alpha,p*}$. Pure and Applied Mathematics Quarterly, 2011, 7, 275-318.	0.4	15

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37	Color Texture Modeling and Color Image Decomposition in a Variational-PDE Approach. , 2006, , .		14
38	On Some Iterative Concepts for Image Restoration. Advances in Imaging and Electron Physics, 2008, 150, 1-51.	0.2	13
39	Numerical methods for minimization problems constrained to S1 and S2. Journal of Computational Physics, 2004, 198, 567-579.	3.8	12
40	General convergent expectation maximization (EM)-type algorithms for image reconstruction. Inverse Problems and Imaging, 2013, 7, 1007-1029.	1.1	11
41	A Combined Segmentation and Registration Framework with a Nonlinear Elasticity Smoother. Lecture Notes in Computer Science, 2009, , 600-611.	1.3	10
42	Variational multiframe restoration of images degraded by noisy (stochastic) blur kernels. Journal of Computational and Applied Mathematics, 2013, 240, 123-134.	2.0	10
43	A piecewise-constant binary model for electrical impedance tomography. Inverse Problems and Imaging, 2007, 1, 423-435.	1.1	10
44	Mumford and Shah Model and Its Applications to Image Segmentation and Image Restoration. , 2015, , 1539-1597.		8
45	Dual Norm Based Iterative Methods for Image Restoration. Journal of Mathematical Imaging and Vision, 2012, 44, 128-149.	1.3	7
46	Mumford and Shah Model and Its Applications to Image Segmentation and Image Restoration. , 2014, , 1-52.		7
47	Active Contours with Free Endpoints. Journal of Mathematical Imaging and Vision, 2014, 49, 20-36.	1.3	7
48	<title>Computational methods for image restoration, image segmentation, and texture modeling</title>. , 2006, 6065, 144.		5
49	Enforcing local context into shape statistics. Advances in Computational Mathematics, 2009, 31, 185-213.	1.6	5
50	Multiphase Segmentation of Deformation using Logarithmic Priors. , 2007, , .		4
51	Multiframe image restoration in the presence of noisy blur kernel. , 2009, , .		4
52	A Unified Variational Volume Registration Method Based on Automatically Learned Brain Structures. Journal of Mathematical Imaging and Vision, 2016, 55, 179-198.	1.3	4
53	Topology preserving active contours. Communications in Mathematical Sciences, 2014, 12, 1329-1342.	1.0	4
54	Gene to mouse atlas registration using a landmark-based nonlinear elasticity smoother. , 2009, , .		3

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55	(Î¦,Î¦*) Image Decomposition Models and Minimization Algorithms. Journal of Mathematical Imaging and Vision, 2009, 33, 135-148.	1.3	3
56	Variational Dynamics of Free Triple Junctions. Journal of Scientific Computing, 2014, 59, 386-411.	2.3	2
57	Segmentation using the edge strength function as a shape prior within a local deformation model. , 2009, , .		1
58	Energy Minimization for Cirrus and Cumulus Cloud Separation in Atmospheric Images. , 2018, , .		1
59	Multiscale Hierarchical Image Decomposition and Refinements: Qualitative and Quantitative Results. SIAM Journal on Imaging Sciences, 2021, 14, 844-877.	2.2	1
60	A texture model based on a concentration of measure. Inverse Problems and Imaging, 2013, 7, 927-946.	1.1	1
61	A convex minimization model in image restoration via one-dimensional Sobolev norm profiles. , 2011, , .		0
62	Image Restoration Using One-Dimensional Sobolev Norm Profiles of Noise and Texture. SIAM Journal on Imaging Sciences, 2014, 7, 366-390.	2.2	0
63	Guest Editorial: Shape Analysis Beyond the Eikonal Equation. Journal of Mathematical Imaging and Vision, 2016, 55, 151-152.	1.3	0
64	A Nonlocal Laplacian-Based Model for Bituminous Surfacing Crack Recovery and its MPI Implementation. Journal of Mathematical Imaging and Vision, 2020, 62, 1007-1033.	1.3	0
65	MRI Tissue Segmentation Using a Variational Multilayer Approach. , 2010, , 5-16.		0