Boris Escalante-RamÃ-rez

List of Publications by Year
in descending order

85 papers	648 citations	14 h-index 623734	23 g-index 642732
87 all docs	87 docs citations	87 times ranked	635 citing authors

#	Article	IF	Citations
1	Automated pollen identification using microscopic imaging and texture analysis. Micron, 2015, 68, 36-46.	2.2	66
2	The multiscale Hermite transform for local orientation analysis. IEEE Transactions on Image Processing, 2006, 15, 1236-1253.	9.8	58
3	Autofocus evaluation for brightfield microscopy pathology. Journal of Biomedical Optics, 2012, 17, 036008.	2.6	54
4	Comparative evaluation of autofocus algorithms for a real€time system for automatic detection of <i>Mycobacterium tuberculosis</i>. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2012, 81A, 213-221.	1.5	41
5	Noise reduction in computerized tomography images by means of polynomial transforms. Journal of Visual Communication and Image Representation, 1992, 3, 272-285.	2.8	31
6	The Hermite transform as an efficient model for local image analysis: An application to medical image fusion. Computers and Electrical Engineering, 2008, 34, 99-110.	4.8	30
7	What is new in computer vision and artificial intelligence in medical image analysis applications. Quantitative Imaging in Medicine and Surgery, 2021, 11, 3830-3853.	2.0	28
8	Left ventricle segmentation in fetal echocardiography using a multi-texture active appearance model based on the steered Hermite transform. Computer Methods and Programs in Biomedicine, 2016, 137, 231-245.	4.7	23
9	Advanced modeling of visual information processing: A multi-resolution directional-oriented image transform based on Gaussian derivatives. Signal Processing: Image Communication, 2005, 20, 801-812.	3.2	22
10	Pollen segmentation and feature evaluation for automatic classification in bright-field microscopy. Computers and Electronics in Agriculture, 2015, 110, 56-69.	7.7	20
11	Optical flow estimation in cardiac CT images using the steered Hermite transform. Signal Processing: Image Communication, 2013, 28, 267-291.	3.2	17
12	Texture Image Retrieval Based on Log-Gabor Features. Lecture Notes in Computer Science, 2012, , 414-421.	1.3	17
13	Rotation-invariant texture features from the steered Hermite transform. Pattern Recognition Letters, 2011, 32, 2150-2162.	4.2	16
14	Extended Gabor approach applied to classification of emphysematous patterns in computed tomography. Medical and Biological Engineering and Computing, 2014, 52, 393-403.	2.8	14
15	Multidimensional Characterization of the Perceptual Quality of Noise-Reduced Computed Tomography Images. Journal of Visual Communication and Image Representation, 1995, 6, 317-334.	2.8	13
16	Segmentation and optical flow estimation in cardiac CT sequences based on a spatiotemporal PDM with a correction scheme and the Hermite transform. Computers in Biology and Medicine, 2016, 69, 189-202.	7.0	13
17	Modelling of high impedance faults in distribution systems and validation based on multiresolution techniques. Computers and Electrical Engineering, 2020, 83, 106576.	4.8	13
18	Lake Chapala change detection using time series. Proceedings of SPIE, 2008, , .	0.8	9

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19	The Hermite Transform: An Alternative Image Representation Model for Iris Recognition. Lecture Notes in Computer Science, 2008, , 86-93.	1.3	8
20	Segmentation of 4D cardiac computer tomography images using active shape models. , 2012, , .		7
21	A 3D Hermite-based multiscale local active contour method with elliptical shape constraints for segmentation of cardiac MR and CT volumes. Medical and Biological Engineering and Computing, 2018, 56, 833-851.	2.8	7
22	A Perceptive Approach to Digital Image Watermarking Using a Brightness Model and the Hermite Transform. Mathematical Problems in Engineering, 2018, 2018, 1-19.	1.1	7
23	Steganography in Audio Files by Hermite Transform. Applied Mathematics and Information Sciences, 2014, 8, 959-966.	0.5	7
24	<title>Wavelet-based denoising methods: a comparative study with applications in microscopy</title>. , 1996, , .		6
25	<title>Image coding with a directional-oriented Hermite transform on a hexagonal lattice</title>. , 2001, , .		6
26	A comprehensive study of texture analysis based on local binary patterns. , 2012, , .		6
27	Lesion Detection in Breast Ultrasound Images Using a Machine Learning Approach and Genetic Optimization. Lecture Notes in Computer Science, 2019, , 289-301.	1.3	6
28	Left ventricle Hermite-based segmentation. Computers in Biology and Medicine, 2017, 87, 236-249.	7.0	6
29	<title>Performance-oriented analysis and evaluation of modern adaptive speckle reduction techniques in SAR images</title>. , 1996, 2753, 18.		5
30	Odometry-Based Viterbi Localization with Artificial Neural Networks and Laser Range Finders for Mobile Robots. Journal of Intelligent and Robotic Systems: Theory and Applications, 2012, 66, 75-109.	3.4	5
31	Texture descriptor approaches to level set segmentation in medical images. Proceedings of SPIE, 2014, , .	0.8	5
32	3D Hermite Transform Optical Flow Estimation in Left Ventricle CT Sequences. Sensors, 2020, 20, 595.	3.8	5
33	<title>Motion analysis and classification with directional Gaussian derivatives in image sequences</title>. , 2000, , .		4
34	<title>Multiresolution directional-oriented image transform based on Gaussian derivatives</title>. , 2001, , .		4
35	A novel multi-focus image fusion algorithm based on feature extraction and wavelets. , 2008, , .		4
36	Image watermarking in the Hermite transform domain with resistance to geometric distortions. , 2008, , .		4

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37	A multiphase texture-based model of active contours assisted by a convolutional neural network for automatic CT and MRI heart ventricle segmentation. Computer Methods and Programs in Biomedicine, 2021, 211, 106373.	4.7	4
38	<title>SAR image classification with a directional-oriented discrete Hermite transform</title>. , 2003, , .		3
39	Nonreference image fusion evaluation procedure based on mutual information and a generalized entropy measure. , 2007, , .		3
40	VO2 and VCO2 variabilities through indirect calorimetry instrumentation. SpringerPlus, 2013, 2, 688.	1.2	3
41	A Comparative Study on Discrete Shmaliy Moments and Their Texture-Based Applications. Mathematical Problems in Engineering, 2018, 2018, 1-17.	1.1	3
42	Mapping small and medium-sized water reservoirs using Sentinel-1A: a case study in Chiapas, Mexico. Journal of Applied Remote Sensing, 2020, 14, 1.	1.3	3
43	<title>Image restoration, deblurring, and coding by means of polynomial transforms</title>. , 1995, , .		2
44	<title>Applications of polynomial transforms to motion estimation</title>. , 1998, , .		2
45	<title>Optical-flow estimation by means of local projection analysis with the Radon-Hermite transform</title>. , 1999, 3816, 121.		2
46	Multiresolution fusion of remotely sensed images with the Hermite transform. , 2004, , .		2
47	Motion estimation and segmentation in CT cardiac images using the Hermite transform and active shape models. , 2013, , .		2
48	Midbrain volume segmentation using active shape models and LBPs. Proceedings of SPIE, 2013, , .	0.8	2
49	Knee cartilage segmentation using active shape models and local binary patterns. , 2014, , .		2
50	Motion magnification using the Hermite transform. , 2015, , .		2
51	Watermarked cardiac CT image segmentation using deformable models and the Hermite transform. Proceedings of SPIE, 2015, , .	0.8	2
52	Classification of Tumor Epithelium and Stroma in Colorectal Cancer Based on Discrete Tchebichef Moments. Lecture Notes in Computer Science, 2016, , 79-87.	1.3	2
53	3D optical flow estimation in cardiac CT images using the Hermite transform. , 2017, , .		2
54	Advances in Rotation-Invariant Texture Analysis. Lecture Notes in Computer Science, 2009, , 145-152.	1.3	2

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55	Image Fusion Algorithm Using the Multiresolution Directional-Oriented Hermite Transform. Lecture Notes in Computer Science, 2011, , 202-210.	1.3	2
56	Optic flow estimation using the Hermite transform. , 2004, , .		1
57	Texture analysis based on the Hermite transform for image classification and segmentation. Proceedings of SPIE, 2012, , .	0.8	1
58	Filtering and left ventricle segmentation of the fetal heart in ultrasound images. Proceedings of SPIE, 2013, , .	0.8	1
59	Knee cartilage segmentation using active shape models and contrast enhancement from magnetic resonance images. Proceedings of SPIE, 2013, , .	0.8	1
60	Segmentation of knee cartilage by using a hierarchical active shape model based on multi-resolution transforms in magnetic resonance images. Proceedings of SPIE, 2013, , .	0.8	1
61	Optical flow estimation of the heart's short axis view using a perceptual approach. , 2013, , .		1
62	Characterization of hematologic malignancies based on discrete orthogonal moments. , 2016, , .		1
63	Deformable Models for Segmentation Based on Local Analysis. Mathematical Problems in Engineering, 2017, 2017, 1-13.	1.1	1
64	Hermite transform-based algorithm to discriminate magnetizing currents in transformers. Sustainable Energy, Grids and Networks, 2021, 27, 100493.	3.9	1
65	Towards a Formalization of a Framework to Express and Reason about Software Engineering Methods. Computing and Informatics, 2018, 37, 109-141.	0.7	1
66	<title>Technique for image interpolation using polynomial transforms</title>. , 1993, , .		0
67	<title>Multidimensional perceptual quality of noise-reduced computed-tomography images</title>. , 1994, 2166, 119.		0
68	<title>Pyramidal predictive image coding with polynomial transforms</title>. , 1995, , .		0
69	<title>Edge-orientation-based noise reduction with polynomial transforms</title>. , 1996, 2847, 281.		0
70	<title>Parametric image coding by means of polynomial transforms</title>. , 1997, , .		0
71	Vector quantizer based on brightness maps for image compression with the polynomial transform. , 2002, 4790, 454.		0
72	Markovian regularization of Hermite-transform-based SAR image classification. , 2004, 5238, 378.		0

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73	Multispectral and SAR image fusion with a multiresolution directional-oriented image transform based on Gaussian derivatives. , 2005, , .		0
74	Image fusion with the multiscale Hermite transform. , 2006, , .		0
75	Characterization of land cover by multi-temporal biophysical variables in fused images. Proceedings of SPIE, 2007, , .	0.8	0
76	Multi-sensor image fusion with the steered Hermite transform. , 2008, , .		0
77	Rural road extraction from SPOT images based on a Hermite transform pansharpening fusion algorithm. Proceedings of SPIE, 2009, , .	0.8	0
78	Blind quality assessment of multi-focus image fusion algorithms. Proceedings of SPIE, 2010, , .	0.8	0
79	Filtering and detection of low contrast structures on ultrasound images. Proceedings of SPIE, 2012, , .	0.8	0
80	Comparative study of variational and level set approaches for shape extraction in cardiac CT images. , 2013, , .		0
81	A level set approach for left ventricle detection in CT images using shape segmentation and optical flow. , 2015, , .		0
82	An active contour framework based on the Hermite transform for shape segmentation of cardiac MR images. Proceedings of SPIE, 2016, , .	0.8	0
83	Texel-based image classification with orthogonal bases. , 2016, , .		0
84	Shape extraction in fetal ultrasound images using a Hermite-based filtering approach and a point distribution model. Proceedings of SPIE, 2016, , .	0.8	0
85	A multiphase active contour model based on the Hermite transform for texture segmentation. , 2018, , .		0