

# Roumen K Kountchev

## List of Publications by Year in descending order

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69  
papers

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citations

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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Hierarchical Decomposition of Third-Order Tensor Through Adaptive Branched Inverse Difference Pyramid Based on 3D-WHT. Smart Innovation, Systems and Technologies, 2022, , 49-61.	0.5	0
2	Third-Order Tensor Decorrelation Based on 3D FO-HKLT with Adaptive Directional Vectorization. Symmetry, 2022, 14, 854.	1.1	1
3	Comparative Analysis of the Hierarchical 3D-SVD and Reduced Inverse Tensor Pyramid in Regard to Famous 3D Orthogonal Transforms. Smart Innovation, Systems and Technologies, 2021, , 35-56.	0.5	1
4	Hierarchical third-order tensor decomposition through inverse difference pyramid based on the three-dimensional Walsh-Hadamard transform with applications in data mining. Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery, 2020, 10, e1314.	4.6	3
5	Complexity Estimation of Cubical Tensor Represented through 3D Frequency-Ordered Hierarchical KLT. Symmetry, 2020, 12, 1605.	1.1	4
6	Hierarchical Cubical Tensor Decomposition through Low Complexity Orthogonal Transforms. Symmetry, 2020, 12, 864.	1.1	7
7	Low Computational Complexity Third-Order Tensor Representation Through Inverse Spectrum Pyramid. Smart Innovation, Systems and Technologies, 2020, , 61-76.	0.5	0
8	ExtrIntDetect – A New Universal Method for the Identification of Intelligent Cooperative Multiagent Systems with Extreme Intelligence. Symmetry, 2019, 11, 1123.	1.1	5
9	Third-Order Tensor Representation Through Reduced Inverse Difference Pyramid. , 2019, , .		2
10	Truncated Hierarchical SVD for image sequences, represented as third order tensor. , 2017, , .		1
11	Sliding Recursive Hierarchical Adaptive PCA for 3D image processing. , 2017, , .		1
12	Image Sequence Decomposition Based on the Truncated Hierarchical SVD. International Journal of Multimedia and Image Processing, 2017, 7, 352-361.	0.1	2
13	Face Recognition in Home Security System Using Tensor Decomposition Based on Radix-(2 <sup>n</sup> -2) Hierarchical SVD. Lecture Notes in Computer Science, 2017, , 48-59.	1.0	0
14	New Approaches for Hierarchical Image Decomposition, Based on IDP, SVD, PCA and KPCA. Intelligent Systems Reference Library, 2016, , 1-58.	1.0	1
15	Tissue Segmentation Methods Using 2D Histogram Matching in a Sequence of MR Brain Images. Intelligent Systems Reference Library, 2016, , 183-222.	1.0	0
16	Hierarchical SVD-based image decomposition with tree structure. International Journal of Reasoning-based Intelligent Systems, 2015, 7, 114.	0.1	2
17	Content protection and hierarchical access control in image databases. , 2015, , .		2
18	Radix-(2 <sup>n</sup> -2) Hierarchical SVD for multi-dimensional images. , 2015, , .		0

#	ARTICLE	IF	CITATIONS
19	Comparison of Image Decompositions Through Inverse Difference and Laplacian Pyramids. International Journal of Multimedia Data Engineering and Management, 2015, 6, 19-38.	0.3	1
20	Adaptive multi-level 2D Karhunen-Loeve-based transform for still images. International Journal of Reasoning-based Intelligent Systems, 2014, 6, 49.	0.1	1
21	An Adaptive Approach for Noise Reduction in Sequences of CT Images. Studies in Computational Intelligence, 2014, , 43-52.	0.7	0
22	New Format for Coding of Single and Sequences of Medical Images. Studies in Computational Intelligence, 2014, , 19-30.	0.7	0
23	ADAPTIVE APPROACH TO QUALITY ENHANCEMENT AND STORAGE OF SIGNATURES AND FINGERPRINT IMAGES. , 2013, , 467-494.		0
24	Compression with Adaptive Speckle Suppression for Ultrasound Medical Images. Studies in Computational Intelligence, 2013, , 57-68.	0.7	0
25	Comparison of the structure and the computational complexity of the inverse difference and Laplacian Pyramids for still image decomposition. , 2013, , .		1
26	Hierarchical principal component analysis-based transformation of multispectral images. International Journal of Reasoning-based Intelligent Systems, 2013, 5, 260.	0.1	2
27	PCA-based Adaptive Hierarchical Transform for correlated image groups. , 2013, , .		3
28	Decorrelation of Sequences of Medical CT Images Based on the Hierarchical Adaptive KLT. Studies in Computational Intelligence, 2013, , 41-55.	0.7	2
29	Complex Hadamard transform of digital signals: properties and applications. International Journal of Reasoning-based Intelligent Systems, 2012, 4, 3.	0.1	2
30	Intelligent processing and analysis of groups of multispectral images. , 2012, , .		0
31	Linear and Non-linear Inverse Pyramidal Image Representation: Algorithms and Applications. Intelligent Systems Reference Library, 2012, , 35-89.	1.0	1
32	Advances in Reasoning-Based Image Processing and Pattern Recognition. Intelligent Systems Reference Library, 2012, , 3-8.	1.0	0
33	Multispectral Image Compression, Intelligent Analysis, and Hierarchical Search in Image Databases. International Journal of Multimedia Data Engineering and Management, 2012, 3, 1-30.	0.3	0
34	Invariant object description with inverse pyramid based on the truncated modified discrete Mellin-Fourier transform. , 2011, , .		3
35	New Method for Adaptive Lossless Compression of Still Images Based on the Histogram Statistics. Smart Innovation, Systems and Technologies, 2011, , 61-70.	0.5	2
36	Efficient compression of sequences of medical and multispectral images. , 2011, , .		1

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37	Automatic detection of welding defects. International Journal of Reasoning-based Intelligent Systems, 2011, 3, 34.	0.1	4
38	Compression of multispectral and multi-view images with inverse pyramid decomposition. International Journal of Reasoning-based Intelligent Systems, 2011, 3, 124.	0.1	3
39	Image compression based on the Karhunen-Loeve color transform with Inverse Pyramid decomposition. , 2011, , .		1
40	Objects Color Segmentation and RSTC-Invariant Representation using Adaptive Color KLT and Modified Mellin-Fourier Transform. , 2011, , .		2
41	Extraction of human body contours and position analysis. , 2010, , .		1
42	Resistant image watermarking in the phases of the Complex Hadamard Transform coefficients. , 2010, , .		6
43	Image Decomposition on the basis of an Inverse Pyramid with 3-layer Neural Networks. , 2010, , 445-450.		0
44	Intra-frame compression of video sequences with Inverse Difference Pyramid decomposition. , 2009, , .		0
45	New method for adaptive karhunen-loeve color transform. , 2009, , .		4
46	Efficient archiving of documents with protection of their authentic content. International Journal of Reasoning-based Intelligent Systems, 2009, 1, 43.	0.1	1
47	Image Watermarking Based on Pyramid Decomposition with CH Transform. Profiles in Operations Research, 2009, , 353-387.	0.3	1
48	Content Based Image Retrieval Using Adaptive Inverse Pyramid Representation. Lecture Notes in Computer Science, 2009, , 304-314.	1.0	6
49	Efficient sign language video representation. , 2008, , .		4
50	Combined visual attention model for video sequences. , 2008, , .		6
51	New Method for Lossless Compression of Medical Records. , 2008, , .		3
52	Extraction of objects contours for body language study. , 2008, , .		1
53	Adaptive Image Pyramidal Representation. , 2008, , .		4
54	Adaptive Contour Image Interpolation for Sign Language Interpretations. , 2008, , .		3

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55	Image Representation with Reduced Spectrum Pyramid. Studies in Computational Intelligence, 2008, , 275-284.	0.7	14
56	Image Multi-Layer Search Based on Spectrum Pyramid. , 2007, , .		4
57	Enhancement of the Visual Quality of Scanned Documents. , 2007, , .		0
58	Data Hiding with Image Decomposition Based on General Spectrum Pyramid. , 2007, , .		0
59	Adaptive Compression of Compound Images. , 2007, , .		2
60	Pre- And Post- Processing for Enhancement Of Image Compression Based On Spectrum Pyramid. , 2007, , 269-274.		3
61	Contrast Enhancement with Histogram-Adaptive Image Segmentation. , 2006, , .		6
62	Image Compression Based On the Inverse Difference Pyramid with BPNN. , 2006, , .		1
63	Documents Image Compression with IDP and Adaptive RLE. Industrial Electronics Society (IECON ), Annual Conference of IEEE, 2006, , .	0.0	3
64	Inverse pyramidal decomposition with multiple DCT. Signal Processing: Image Communication, 2002, 17, 201-218.	1.8	11
65	Generating classifier outputs of fixed accuracy and diversity. Pattern Recognition Letters, 2002, 23, 593-600.	2.6	32
66	Invariant recognition system for 2D objects based on three-stage BPNN structure. Electronics Letters, 1998, 34, 974.	0.5	1
67	Adaptive speech coding with DCT and neural net vector quantisation. Electronics Letters, 1993, 29, 704.	0.5	6
68	Adaptive error duffusion method for image quantisation. Electronics Letters, 1993, 29, 2021.	0.5	4
69	Multimedia watermarking with complex Hadamard transform in the inverse pyramid decomposition. , 0, , .		3