Jan P Cornelis

List of Publications by Year
in descending order

151 papers	2,239 citations	331670 21 h-index	276875 41 g-index
153 all docs	153 docs citations	153 times ranked	1829 citing authors

#	Article	IF	Citations
1	Validity and reliability of the Kinect within functional assessment activities: Comparison with standard stereophotogrammetry. Gait and Posture, 2014, 39, 593-598.	1.4	220
2	A novel computer-aided lung nodule detection system for CT images. Medical Physics, 2011, 38, 5630-5645.	3.0	187
3	Wavelet coding of volumetric medical datasets. IEEE Transactions on Medical Imaging, 2003, 22, 441-458.	8.9	148
4	In-band motion compensated temporal filtering. Signal Processing: Image Communication, 2004, 19, 653-673.	3.2	121
5	A critical view of pyramid segmentation algorithms. Pattern Recognition Letters, 1990, 11, 605-617.	4.2	105
6	Crack detection and inpainting for virtual restoration of paintings: The case of the Ghent Altarpiece. Signal Processing, 2013, 93, 605-619.	3.7	77
7	Lossless integer wavelet transform. IEEE Signal Processing Letters, 1997, 4, 158-160.	3.6	62
8	A model-based approach to the automatic extraction of linear features from airborne images. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2073-2079.	6.3	57
9	Improved Gesture Recognition Based on sEMG Signals and TCN. , 2019, , .		53
10	Segmentation of medical images. Image and Vision Computing, 1993, 11, 486-503.	4.5	52
11	Object recognition in brain CT-scans: knowledge-based fusion of data from multiple feature extractors. IEEE Transactions on Medical Imaging, 1995, 14, 212-229.	8.9	50
12	Wavelet-based lossless compression scheme with progressive transmission capability. International Journal of Imaging Systems and Technology, 1999, 10, 76-85.	4.1	44
13	Determination of the precision and accuracy of morphological measurements using the Kinectâ„¢ sensor: comparison with standard stereophotogrammetry. Ergonomics, 2014, 57, 622-631.	2.1	44
14	Artificial Intelligence Revolutionises Weather Forecast, Climate Monitoring and Decadal Prediction. Remote Sensing, 2021, 13, 3209.	4.0	34
15	Complete-to-overcomplete discrete wavelet transforms: theory and applications. IEEE Transactions on Signal Processing, 2005, 53, 1398-1412.	5.3	31
16	Scalable Joint Source-Channel Coding for the Scalable Extension of H.264/AVC. IEEE Transactions on Circuits and Systems for Video Technology, 2008, 18, 1657-1670.	8.3	31
17	Embedded Multiple Description Coding of Video. IEEE Transactions on Image Processing, 2006, 15, 3114-3130.	9.8	30
18	ACM-Based Automatic Liver Segmentation From 3-D CT Images by Combining Multiple Atlases and Improved Mean-Shift Techniques. IEEE Journal of Biomedical and Health Informatics, 2013, 17, 690-698.	6.3	30

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19	A Systematic Literature Review of the Successors of â€œNeuroEvolution of Augmenting Topologiesâ€. Evolutionary Computation, 2021, 29, 1-73.	3.0	29
20	Overlapped Block Motion Estimation and Probabilistic Compensation with Application in Distributed Video Coding. IEEE Signal Processing Letters, 2009, 16, 743-746.	3.6	26
21	An efficient VLSI architecture for 2-D wavelet image coding with novel image scan. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 1999, 7, 56-68.	3.1	25
22	Phased searching with NEAT in a Time-Scaled Framework: Experiments on a computer-aided detection system for lung nodules. Artificial Intelligence in Medicine, 2013, 59, 157-167.	6.5	25
23	Segmented image coding: Techniques and experimental results. Signal Processing: Image Communication, 1997, 11, 63-80.	3.2	24
24	Data Augmentation of Surface Electromyography for Hand Gesture Recognition. Sensors, 2020, 20, 4892.	3.8	24
25	Comparison of micro-CT imaging and histology for approximal caries detection. Scientific Reports, 2017, 7, 6680.	3.3	23
26	Low level image partitioning guided by the gradient watershed hierarchy. Signal Processing, 1999, 75, 173-195.	3.7	22
27	Scalable Intraband and Composite Wavelet-Based Coding of Semiregular Meshes. IEEE Transactions on Multimedia, 2010, 12, 773-789.	7.2	22
28	<title>Complete-to-overcomplete discrete wavelet transforms for scalable video coding with MCTF</title>. , 2003, , .		20
29	Bottom-up motion compensated prediction in wavelet domain for spatially scalable video coding. Electronics Letters, 2002, 38, 1251.	1.0	19
30	Wavelet-based scalable L-infinity-oriented compression. IEEE Transactions on Image Processing, 2006, 15, 2499-2512.	9.8	19
31	Comparison of spatial and aspatial logistic regression models for landmine risk mapping. Applied Geography, 2016, 66, 52-63.	3.7	19
32	Hilbert sEMG data scanning for hand gesture recognition based on deep learning. Neural Computing and Applications, 2021, 33, 2645-2666.	5.6	19
33	A center-biased adaptive search algorithm for block motion estimation. IEEE Transactions on Circuits and Systems for Video Technology, 2000, 10, 423-426.	8.3	16
34	High-Level Cache Modeling for 2-D Discrete Wavelet Transform Implementations. Journal of Signal Processing Systems, 2003, 34, 209-226.	1.0	16
35	MESHGRIDâ€”A Compact, Multiscalable and Animation-Friendly Surface Representation. IEEE Transactions on Circuits and Systems for Video Technology, 2004, 14, 950-966.	8.3	16
36	Distributed Video Coding with Shared Encoder/Decoder Complexity. , 2007, , .		16

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37	A shape prior constraint for implicit active contours. Pattern Recognition Letters, 2011, 32, 1937-1947.	4.2	16
38	Digital canvas removal in paintings. Signal Processing, 2012, 92, 1166-1171.	3.7	16
39	A Hilbert Curve Based Representation of sEMG Signals for Gesture Recognition. , 2019, , .		16
40	Using Landmarks to Establish a Point-to-Point Correspondence between Signatures. Pattern Analysis and Applications, 2000, 3, 69-75.	4.6	15
41	Embedded multiple description scalar quantisers. Electronics Letters, 2003, 39, 979.	1.0	15
42	Motion and texture rate-allocation for prediction-based scalable motion-vector coding. Signal Processing: Image Communication, 2005, 20, 315-342.	3.2	15
43	Wavelet-based fixed and embedded L-infinite-constrained image coding. Journal of Electronic Imaging, 2003, 12, 522.	0.9	14
44	A CMOS pulse-width modulator/pulse-amplitude modulator for four-quadrant analog multipliers. IEEE Journal of Solid-State Circuits, 1992, 27, 1289-1293.	5.4	13
45	The vector-radix fast cosine transform: Pruning and complexity analysis. Signal Processing, 1995, 43, 197-205.	3.7	13
46	Hierarchical contour matching in medical images. Image and Vision Computing, 1996, 14, 417-433.	4.5	12
47	Scalable motion vector coding. Electronics Letters, 2004, 40, 932.	1.0	12
48	Generalisation of embedded multiple description scalar quantisers. Electronics Letters, 2005, 41, 63.	1.0	12
49	Signal Representation and Processing of Nucleotide Sequences. , 2007, , .		11
50	Scalable Joint Source and Channel Coding of Meshes. IEEE Transactions on Multimedia, 2008, 10, 503-513.	7.2	11
51	Scalable Multiple-Description Image Coding Based on Embedded Quantization. Eurasip Journal on Image and Video Processing, 2007, 2007, 1-11.	2.6	10
52	Spectral Aging Model Applied to Meteosat First Generation Visible Band. Remote Sensing, 2014, 6, 2534-2571.	4.0	10
53	Contour simplification for segmented still image and video coding: algorithms and experimental results. Signal Processing: Image Communication, 1999, 14, 335-357.	3.2	9
54	Centennial Total Solar Irradiance Variation. Remote Sensing, 2022, 14, 1072.	4.0	9

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55	Information-Theoretic Analysis of Dependencies Between Curvelet Coefficients. , 2006, , .		8
56	On the side-information dependency of the temporal correlation in Wyner-Ziv video coding. , 2009, , .		8
57	Wavelet-based compression of medical images: Protocols to improve resolution and quality scalability and region-of-interest coding. Future Generation Computer Systems, 1999, 15, 171-184.	7.5	7
58	Modeling the Correlation Noise in Spatial Domain Distributed Video Coding. , 2009, , .		7
59	Evidence of pre-launch characterization problem of Meteosat-7 visible spectral response. Remote Sensing Letters, 2013, 4, 1008-1017.	1.4	7
60	A Spectral Aging Model for the Meteosat-7 Visible Band. Journal of Atmospheric and Oceanic Technology, 2013, 30, 496-509.	1.3	7
61	Real-Time Analysis of Hand Gesture Recognition with Temporal Convolutional Networks. Sensors, 2022, 22, 1694.	3.8	7
62	JPEG2000 Part 10: volumetric imaging. , 2003, , .		6
63	Watershed-based multiscale segmentation method for color images using automated scale selection. Journal of Electronic Imaging, 2005, 14, 033007.	0.9	6
64	Optimal Joint Source-Channel Coding using Unequal Error Protection for the Scalable Extension of H.264/MPEG-4 AVC. , 2007, , .		6
65	Scalable L-Infinite Coding of Meshes. IEEE Transactions on Visualization and Computer Graphics, 2010, 16, 513-528.	4.4	6
66	A wavelet-tree image coding system with efficient memory utilization. , 0, , .		6
67	Efficient implementation of embedded zero-tree wavelet encoding. , 0, , .		5
68	<title>Compression of volumetric medical data based on cube splitting</title>. , 2000, , .		5
69	Wavelet-based L-infinite scalable coding. Electronics Letters, 2002, 38, 1338.	1.0	5
70	Model-based technique for the measurement of skin thickness in mammography. Medical and Biological Engineering and Computing, 2002, 40, 153-162.	2.8	5
71	Embedded multiple description scalar quantizers for progressive image transmission. , 2003, , .		5
72	Signal representation and processing of nucleotide sequences. International Journal of Functional Informatics and Personalised Medicine, 2008, 1, 253.	0.4	5

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73	Error protection of scalable soures: A comparative analysis of Forward Error Correction and Multiple Description Coding. , 2009, , .		5
74	Spatial-domain unidirectional DVC with side-information dependent correlation channel estimation. , 2009, , .		5
75	Correlation channel estimation in pixel-domain distributed video coding. , 2009, , .		5
76	Analysis of a feature-deselective neuroevolution classifier (FD-NEAT) in a computer-aided lung nodule detection system for CT images. , 2012, , .		5
77	Probabilistic motion-compensated prediction in distributed video coding. Multimedia Tools and Applications, 2013, 66, 405-430.	3.9	5
78	On Hybrid Directional Transform-Based Intra-band Image Coding. Lecture Notes in Computer Science, 2007, , 1049-1060.	1.3	5
79	Adiabatic layering: A new concept of hierarchical multi-scale optimization. Neural Networks, 1995, 8, 1373-1378.	5.9	4
80	Single-rate calculation of overcomplete discrete wavelet transforms for scalable coding applications. Signal Processing, 2005, 85, 1103-1124.	3.7	4
81	Segmentation-Driven Direction-Adaptive Discrete Wavelet Transform. Proceedings International Conference on Image Processing, 2007, , .	0.0	4
82	Analysis of the Statistical Dependencies in the Curvelet Domain and Applications in Image Compression. Lecture Notes in Computer Science, 2007, , 1061-1071.	1.3	4
83	Optimized scalable Multiple-Description Coding and FEC-based Joint Source-Channel Coding: A performance comparison. , 2009, , .		4
84	Symmetric Scalable Multiple Description Scalar Quantization. IEEE Transactions on Signal Processing, 2012, 60, 3628-3643.	5.3	4
85	Hazard Mapping of Landmines and ERW Using Geo-Spatial Techniques. Journal of Remote Sensing & GIS, 2017, 06, .	0.3	4
86	Feature Extraction for Iris Recognition Based on Optimized Convolution Kernels. Lecture Notes in Computer Science, 2013, , 141-150.	1.3	4
87	Improved automated early detection of breast cancer based on high resolution 3D micro-CT microcalcification images. BMC Cancer, 2022, 22, 162.	2.6	4
88	Mapping of bioelectric potentials: Two extensions to the multipole theory. , 1992, , .		3
89	<title>Efficient computation of the two-dimensional fast cosine transform</title>. , 1994, 2238, 229.		3
90	Progressive lossless coding of medical images. Future Generation Computer Systems, 1998, 14, 23-32.	7.5	3

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91	Video coding based on motion estimation in the wavelet detail images. , 0, , .		3
92	<title>Error protection and concealment of motion vectors in MCTF-based video coding</title>. , 2004, , .		3
93	A new family of embedded multiple description scalar quantizers. , 0, , .		3
94	Robust Motion Vector Coding and Error Concealment in MCTF-Based Video Coding. , 0, , .		3
95	A METHOD TO CONSTRUCT FLAT MAPS OF THE BRAIN'S SURFACE AND ITS APPLICATION. International Journal of Pattern Recognition and Artificial Intelligence, 2006, 20, 679-709.	1.2	3
96	Inserts in prokaryote genomes. , 2008, , .		3
97	Context-conditioned composite coding of 3D meshes based on wavelets on surfaces. , 2009, , .		3
98	Estimation of interband and intraband statistical dependencies in wavelet-based decomposition of meshes. , 2009, , .		3
99	Experimental study of canvas characterization for paintings. Proceedings of SPIE, 2010, , .	0.8	3
100	Transfer Learning in sEMG-based Gesture Recognition. , 2021, , .		3
101	<title>MAXAD distortion minimization for wavelet compression of remote sensing data</title>. , 2001, , .		2
102	<title>Compression and multifunctionality support of multispectral satellite data</title>. , 2001, , .		2
103	Cache misses and energy-dissipation results for JPEG-2000 filtering. , 0, , .		2
104	On the optimality of embedded deadzone scalar-quantizers for wavelet-based L-infinite-constrained image coding. , 0, , .		2
105	Scalable motion vector coding. , 2004, , .		2
106	A Low-Complexity UEP Methodology Demonstrated on a Turbo-Encoded Wavelet Image Satellite Downlink. Eurasip Journal on Wireless Communications and Networking, 2007, 2008, .	2.4	2
107	Intra-frame video coding using an open-loop predictive coding approach. , 2008, , .		2
108	Fully scalable intraband coding of wavelet-decomposed 3D meshes. , 2009, , .		2

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109	A probabilistic predictor for side information generation in distributed video coding. , 2011, , .		2
110	Scalable Multiple-Description Image Coding Based on Embedded Quantization. Eurasip Journal on Image and Video Processing, 2007, 2007, 081813.	2.6	2
111	Do you also have problems with the file format syndrome?. Medical and Biological Engineering and Computing, 1991, 29, NS55-NS60.	2.8	1
112	An adiabatic neural network for RBF approximation. Neural Computing and Applications, 1994, 2, 69-88.	5.6	1
113	<title>Hierarchical fractal-based segmentation of color images</title>. , 1995, , .		1
114	Multipole Approach to the Inverse Problem in Electrocardiology: Convergence of the Multipole Equivalent Generator on the Inhomogeneous Body Conductor. Bulletin of Mathematical Biology, 2000, 62, 543-583.	1.9	1
115	<title>Scalable multiple description coding of video using motion-compensated temporal filtering and embedded multiple description scalar quantization</title>. , 2004, 5607, 81.		1
116	Impact of source-independent modeling on unequal error protection for JPEG2000 images. , 2006, 6383, 66.		1
117	Joint Source-Channel Coding for the Scalable Extension of H.264/MPEG-4 AVC. , 2007, , .		1
118	Signal Analysis of Pathogens' Genomic Sequences. , 2007, , .		1
119	ANN Prediction of Nucleotide Sequences Link of Principal Component Analysis to Fourier Transform. , 2007, , .		1
120	Common trend extraction from sets of genomic signals. , 2008, , .		1
121	Statistical L-infinite distortion estimation in scalable coding of meshes. , 2008, , .		1
122	Design and evaluation of sparse quantization index modulation watermarking schemes. Proceedings of SPIE, 2008, , .	0.8	1
123	Efficient error control in 3D mesh coding. , 2010, , .		1
124	On the use of directional transforms for still image coding. Proceedings of SPIE, 2011, , .	0.8	1
125	The Effect of Space-filling Curves on the Efficiency of Hand Gesture Recognition Based on sEMG Signals. International Journal of Electrical and Computer Engineering Systems, 2021, 12, 23-31.	0.6	1
126	EU-China university governance structuresâ€"case studies. Asia Europe Journal, 2022, 20, 137-171.	1.2	1

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127	Modeling Wavelet Coefficients for Wavelet Subdivision Transforms of 3D Meshes. Lecture Notes in Computer Science, 2010, , 267-278.	1.3	1
128	A Hybrid Approach for Designing Dynamic and Data-Driven Clinical Pathways Point of Care Instruments in Low Resource Settings. Studies in Health Technology and Informatics, 2022, , .	0.3	1
129	Medical image processing. Image and Vision Computing, 1993, 11, 458-459.	4.5	0
130	<title>Multistage analysis of Meteosat images</title>. , 1995, , .		0
131	A novel charge amplifying technique. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 406, 507-511.	1.6	0
132	Lossless multiresolution uniform representation of remote sensing satellite data on a sphere. , 1998, , .		0
133	<title>Model-based car tracking through the integration of search and estimation</title>. , 1998, 3364, 160.		0
134	A low bit rate segmented video codec with hybrid motion estimation and inherent bit rate control capability. , 0, , .		0
135	Model-based calculation of the dynamic point spread function of a radiometer: a case study ScaRaB FM1. , 1998, 3491, 981.		0
136	<title>Comparison of memory complexity of JPEG and JPEG 2000</title>. , 2000, 4115, 535.		0
137	Complexity scalability in video coding based on in-band motion-compensated temporal filtering. , 0, , .		0
138	MMC02-5: A Low-Complexity Methodology for Unequal Error Protection of Scalable Images. IEEE Global Telecommunications Conference (GLOBECOM), 2006, , .	0.0	0
139	Unequal error protection of the reference grid for robust transmission of MeshGrid-represented objects over error-prone channels. , 2006, 6383, 56.		0
140	Joint source and channel coding of embedded wavelet-based coded images using LDPC codes. , 2006, , .		0
141	Nucleotide genomic signal analysis. , 2008, , .		0
142	A model-based analysis of scalable Multiple Description Coding. , 2011, , .		0
143	Histogram analysis of CT scans for patients with post-mastectomy lymphedema. , 2011, , .		0
144	Ambulatory Cardiogenic Pulmonary Edema Monitoring as an Essential Ubiquitous Healthcare Service â€“ Development of a Simulation Model. Journal of Medical Imaging and Health Informatics, 2012, 2, 64-69.	0.3	0

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145	The Action Game. Interaction Studies, 2012, 13, 285-313.	0.6	0
146	Performing Deblocking in Video Coding Based on Spatial-Domain Motion-Compensated Temporal Filtering. Lecture Notes in Computer Science, 2006, , 364-374.	1.3	0
147	Applying Open-Loop Coding in Predictive Coding Systems. Lecture Notes in Computer Science, 2008, , 25-37.	1.3	0
148	Scalable Coding and Transmission of Meshes using MESHGRID. , 2008, , .		0
149	Automated Estimation of 3D Camera Extrinsic Parameters for the Monitoring of Physical Activity of Elderly Patients. IFMBE Proceedings, 2010, , 699-702.	0.3	0
150	Topological Edge Finding. , 1996, , 427-430.		0
151	Iris Segmentation based on an Optimized U-Net. , 2022, , .		0