

Jian-Jiun Ding

List of Publications by Year in descending order

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Version: 2024-02-01

165
papers

2,181
citations

430874

18
h-index

345221

36
g-index

166
all docs

166
docs citations

166
times ranked

1524
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Relations between fractional operations and time-frequency distributions, and their applications. IEEE Transactions on Signal Processing, 2001, 49, 1638-1655. | 5.3 | 236 |
| 2 | Bearing Fault Diagnosis Based on Multiscale Permutation Entropy and Support Vector Machine. Entropy, 2012, 14, 1343-1356. | 2.2 | 231 |
| 3 | Efficient implementation of quaternion Fourier transform, convolution, and correlation by 2-D complex FFT. IEEE Transactions on Signal Processing, 2001, 49, 2783-2797. | 5.3 | 192 |
| 4 | Eigenfunctions of linear canonical transform. IEEE Transactions on Signal Processing, 2002, 50, 11-26. | 5.3 | 142 |
| 5 | Facial age estimation based on label-sensitive learning and age-oriented regression. Pattern Recognition, 2013, 46, 628-641. | 8.1 | 126 |
| 6 | Relations Between Gabor Transforms and Fractional Fourier Transforms and Their Applications for Signal Processing. IEEE Transactions on Signal Processing, 2007, 55, 4839-4850. | 5.3 | 103 |
| 7 | Facial expression recognition based on improved local binary pattern and class-regularized locality preserving projection. Signal Processing, 2015, 117, 1-10. | 3.7 | 86 |
| 8 | Commutative Reduced Biquaternions and Their Fourier Transform for Signal and Image Processing Applications. IEEE Transactions on Signal Processing, 2004, 52, 2012-2031. | 5.3 | 78 |
| 9 | Fractional Fourier Transform, Wigner Distribution, and Filter Design for Stationary and Nonstationary Random Processes. IEEE Transactions on Signal Processing, 2010, 58, 4079-4092. | 5.3 | 67 |
| 10 | PMS-Net: Robust Haze Removal Based on Patch Map for Single Images. , 2019, , . | | 63 |
| 11 | Fractional cosine, sine, and Hartley transforms. IEEE Transactions on Signal Processing, 2002, 50, 1661-1680. | 5.3 | 62 |
| 12 | PMHLD: Patch Map-Based Hybrid Learning DehazeNet for Single Image Haze Removal. IEEE Transactions on Image Processing, 2020, 29, 6773-6788. | 9.8 | 60 |
| 13 | ALL Snow Removed: Single Image Desnowing Algorithm Using Hierarchical Dual-tree Complex Wavelet Representation and Contradict Channel Loss. , 2021, , . | | 52 |
| 14 | JSTASR: Joint Size and Transparency-Aware Snow Removal Algorithm Based on Modified Partial Convolution and Veiling Effect Removal. Lecture Notes in Computer Science, 2020, , 754-770. | 1.3 | 48 |
| 15 | Eigenfunctions of Fourier and Fractional Fourier Transforms With Complex Offsets and Parameters. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 1599-1611. | 0.1 | 42 |
| 16 | Eigenvalues and Singular Value Decompositions of Reduced Biquaternion Matrices. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 2673-2685. | 5.4 | 33 |
| 17 | Generalized Commuting Matrices and Their Eigenvectors for DFTs, Offset DFTs, and Other Periodic Operations. IEEE Transactions on Signal Processing, 2008, 56, 3891-3904. | 5.3 | 28 |
| 18 | Adaptive Golomb Code for Joint Geometrically Distributed Data and Its Application in Image Coding. IEEE Transactions on Circuits and Systems for Video Technology, 2013, 23, 661-670. | 8.3 | 25 |

| # | ARTICLE | IF | CITATIONS |
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| 19 | Reweightings of the sensory inputs for postural control in patients with cervical spondylotic myelopathy after surgery. Journal of NeuroEngineering and Rehabilitation, 2019, 16, 96. | 4.6 | 25 |
| 20 | Real time accelerometer-based gait recognition using adaptive windowed wavelet transforms. , 2012, , . | | 24 |
| 21 | Improved implementation algorithms of the two-dimensional nonseparable linear canonical transform. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 1615. | 1.5 | 19 |
| 22 | Generalized Eigenvectors and Fractionalization of Offset DFTs and DCTs. IEEE Transactions on Signal Processing, 2004, 52, 2032-2046. | 5.3 | 18 |
| 23 | Improved reversible integer-to-integer color transforms. , 2009, , . | | 18 |
| 24 | Closed-Form Orthogonal DFT Eigenvectors Generated by Complete Generalized Legendre Sequence. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 3469-3479. | 5.4 | 17 |
| 25 | Closed-Form Orthogonal Number Theoretic Transform Eigenvectors and the Fast Fractional NTT. IEEE Transactions on Signal Processing, 2011, 59, 2124-2135. | 5.3 | 17 |
| 26 | Quaternion matrix singular value decomposition and its applications for color image processing. , 0, , . | | 16 |
| 27 | Improved Efficiency on Adaptive Arithmetic Coding for Data Compression Using Range-Adjusting Scheme, Increasingly Adjusting Step, and Mutual-Learning Scheme. IEEE Transactions on Circuits and Systems for Video Technology, 2018, 28, 3412-3423. | 8.3 | 16 |
| 28 | Accurate Road Detection from Satellite Images Using Modified U-net. , 2018, , . | | 15 |
| 29 | DFT-Commuting Matrix With Arbitrary or Infinite Order Second Derivative Approximation. IEEE Transactions on Signal Processing, 2009, 57, 390-394. | 5.3 | 14 |
| 30 | A Telesurveillance System With Automatic Electrocardiogram Interpretation Based on Support Vector Machine and Rule-Based Processing. JMIR Medical Informatics, 2015, 3, e21. | 2.6 | 14 |
| 31 | Color Images Enhancement using Weighted Histogram Separation. , 2006, , . | | 13 |
| 32 | Two-Dimensional Orthogonal DCT Expansion in Trapezoid and Triangular Blocks and Modified JPEG Image Compression. IEEE Transactions on Image Processing, 2013, 22, 3664-3675. | 9.8 | 11 |
| 33 | Improved Harris' Algorithm for Corner and Edge Detections. , 2007, , . | | 10 |
| 34 | Color pattern recognition by quaternion correlation. , 0, , . | | 9 |
| 35 | Facial age estimation based on label-sensitive learning and age-specific local regression. , 2012, , . | | 9 |
| 36 | DesmokeNet: A Two-Stage Smoke Removal Pipeline Based on Self-Attentive Feature Consensus and Multi-Level Contrastive Regularization. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 3346-3359. | 8.3 | 9 |

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|----|--|-----|-----------|
| 37 | Frontalization and adaptive exponential ensemble rule for deep-learning-based facial expression recognition system. Signal Processing: Image Communication, 2021, 96, 116321. | 3.2 | 8 |
| 38 | Conjugate Symmetric Discrete Orthogonal Transform. IEEE Transactions on Circuits and Systems II: Express Briefs, 2014, 61, 284-288. | 3.0 | 7 |
| 39 | Real-time interactive image segmentation using improved superpixels. , 2015, , . | | 7 |
| 40 | Impact of blood pressure control on retinal microvasculature in patients with chronic kidney disease. Scientific Reports, 2020, 10, 14275. | 3.3 | 7 |
| 41 | 2D quaternion Fourier spectral analysis and its applications. , 0, , . | | 6 |
| 42 | New corner detection algorithm by tangent and vertical axes and case table. , 2005, , . | | 6 |
| 43 | Analysis of Attenuation Measurements in Ocean Sediments Using Normal Incidence Chirp Sonar. IEEE Journal of Oceanic Engineering, 2012, 37, 533-543. | 3.8 | 6 |
| 44 | Image retrieval based on quadtree classified vector quantization. Multimedia Tools and Applications, 2014, 72, 1961-1984. | 3.9 | 6 |
| 45 | Robust in-plane and out-of-plane face detection algorithm using frontal face detector and symmetry extension. Image and Vision Computing, 2018, 78, 26-41. | 4.5 | 6 |
| 46 | Structural similarity-based nonlocal edge-directed image interpolation. , 2013, , . | | 5 |
| 47 | A real-time detection algorithm for freezing of gait in Parkinson's disease. , 2014, , . | | 5 |
| 48 | Image deblurring using a pyramid-based Richardson-Lucy algorithm. , 2014, , . | | 5 |
| 49 | Spectralâ€‘Temporal Receptive Field-Based Descriptors and Hierarchical Cascade Deep Belief Network for Guitar Playing Technique Classification. IEEE Transactions on Cybernetics, 2022, 52, 3684-3695. | 9.5 | 5 |
| 50 | Fractional, canonical, and simplified fractional cosine transforms. , 0, , . | | 4 |
| 51 | The generalized radial Hilbert transform and its applications to 2D edge detection (any direction or) Tj ETQq1 1 0.784314 rgBT /Overl | | 4 |
| 52 | Context-based adaptive zigzag scanning for image coding. , 2011, , . | | 4 |
| 53 | Jacket Haar transform. , 2011, , . | | 4 |
| 54 | Coarse-to-fine temporal optimization for video retargeting based on seam carving. , 2011, , . | | 4 |

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| 55 | ECG baseline extraction by gradient varying weighting functions. , 2013, , . | | 4 |
| 56 | Advanced query by humming system using diffused hidden Markov model and tempo based dynamic programming. , 2016, , . | | 4 |
| 57 | Dynamic tracking attention model for action recognition. , 2017, , . | | 4 |
| 58 | Exemplar-embed complex matrix factorization for facial expression recognition. , 2017, , . | | 4 |
| 59 | 3-D Cell Segmentation by Improved V-Net Architecture Using Edge and Boundary Labels. , 2019, , . | | 4 |
| 60 | Adaptive Prediction, Context Modeling, and Entropy Coding Methods for CALIC Lossless Image Compression. , 2019, , . | | 4 |
| 61 | Integer discrete Fourier transform and its extension to integer trigonometric transforms. , 0, , . | | 3 |
| 62 | Reversible integer color transform with bit-constraint. , 2005, , . | | 3 |
| 63 | DCT-Based Image Protection using Dual-Domain Bi-Watermarking Algorithm. , 2006, , . | | 3 |
| 64 | Improved Reversible Integer Transform. , 0, , . | | 3 |
| 65 | Short response Hilbert transform for edge detection. , 2008, , . | | 3 |
| 66 | Asymmetric fourier descriptor of non-closed segments. , 2010, , . | | 3 |
| 67 | Banknote reconstruction from fragments using quadratic programming and SIFT points. , 2014, , . | | 3 |
| 68 | Haze detection and haze degree estimation using dark channels and contrast histograms. , 2015, , . | | 3 |
| 69 | Adaptive growing and merging algorithm for image segmentation. , 2016, , . | | 3 |
| 70 | Frontalization with Adaptive Exponentially-Weighted Average Ensemble Rule for Deep Learning Based Facial Expression Recognition. , 2018, , . | | 3 |
| 71 | Efficient EEG Signal Compression Algorithm with Long Length Improved Adaptive Arithmetic Coding and Advanced Division and Encoding Techniques. , 2018, , . | | 3 |
| 72 | Automatic Writer Verification Algorithm for Chinese Characters Using Semi-Global Features and Adaptive Classifier. , 2018, , . | | 3 |

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| 73 | Cell Segmentation Algorithm Using Double Thresholding with Morphology-Based Techniques. , 2018, , . | | 3 |
| 74 | Improved Angle Freeman Chain Code Using Improved Adaptive Arithmetic Coding. , 2020, , . | | 3 |
| 75 | Fractional Fourier Transforms and Wigner Distribution Functions for Stationary and Non-Stationary Random Process. , 0, , . | | 2 |
| 76 | Muscle injury determination by image segmentation. , 2011, , . | | 2 |
| 77 | Efficient discrete fractional Hirschman optimal transform and its application. , 2011, , . | | 2 |
| 78 | Local prediction based adaptive scanning for JPEG and H.264/AVC intra coding. , 2013, , . | | 2 |
| 79 | Nonlocal context modeling and adaptive prediction for lossless image coding. , 2013, , . | | 2 |
| 80 | Advanced contour compression algorithm using weighted curvature, Lagrange curve approximation, and improvement adaptive arithmetic coding. , 2015, , . | | 2 |
| 81 | An efficient sky detection algorithm based on hybrid probability model. , 2015, , . | | 2 |
| 82 | Efficient image deblurring via blockwise non-blind deconvolution algorithm. , 2015, , . | | 2 |
| 83 | Shape-adaptive image compression using lossy shape coding, SA-prediction, and SA-deblocking. , 2016, , . | | 2 |
| 84 | Improved frequency table adjusting algorithms for context-based adaptive lossless image coding. , 2016, , . | | 2 |
| 85 | Occlusion pattern-based dictionary for robust face recognition. , 2016, , . | | 2 |
| 86 | Improved convolutional neural network based scene classification using long short-term memory and label relations. , 2017, , . | | 2 |
| 87 | Dolphin Recognition with Adaptive Hybrid Saliency Detection for Deep Learning Based on DenseNet Recognition. , 2018, , . | | 2 |
| 88 | Novel Adaptive Road Path Searches with Small Motion Prejudgments for Fast Block Motion Estimation. , 2018, , . | | 2 |
| 89 | Super-Resolution via Wavelet Transform and Advanced Learning Techniques. , 2019, , . | | 2 |
| 90 | Automatic Chinese Handwriting Verification Algorithm Using Deep Neural Networks. , 2019, , . | | 2 |

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| 91 | Backbone Alignment and Cascade Tiny Object Detecting Techniques for Dolphin Detection and Classification. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2021, E104.A, 734-743. | 0.3 | 2 |
| 92 | Simplified structures for two-dimensional adaptive notch filters. , 0, , . | | 1 |
| 93 | Discrete Fractional Fourier Transform Based on New Nearly Tridiagonal Commuting Matrices. , 0, , . | | 1 |
| 94 | Reducing Sampling Error by Prolate Spheroidal Wave Functions and Fractional Fourier Transform. , 0, , . | | 1 |
| 95 | Coefficient-truncated higher-order commuting matrices of the discrete fourier transform. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , . | 1.8 | 1 |
| 96 | Efficient DC term encoding scheme based on double prediction algorithms and Pareto probability models. , 2013, , . | | 1 |
| 97 | Improved structural similarity measurement for vocal signals. , 2013, , . | | 1 |
| 98 | Fast morphology algorithm with parallel processing structures. , 2014, , . | | 1 |
| 99 | End-point preserved stroke extraction. , 2014, , . | | 1 |
| 100 | A region adaptive encoding algorithm for simple image compression. , 2014, , . | | 1 |
| 101 | Compression for the feature points with binary descriptors. , 2014, , . | | 1 |
| 102 | Multilayer image disparity estimation and blending for light field cameras. , 2015, , . | | 1 |
| 103 | Lossless contour compression using morphology, chain coding, and distribution transform. , 2015, , . | | 1 |
| 104 | Nonlocal means image denoising based on bidirectional principal component analysis. , 2015, , . | | 1 |
| 105 | Morphology-based disparity estimation and rendering algorithm for light field images. , 2016, , . | | 1 |
| 106 | Action recognition using three dimension convolution and long short term memory. , 2017, , . | | 1 |
| 107 | Advanced one-bit transform algorithm with edge enhancement and representative feature extraction for low-complexity and accurate motion estimation. , 2017, , . | | 1 |
| 108 | Prediction techniques for wavelet based 1-D signal compression. , 2017, , . | | 1 |

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| 109 | Flipping and blending based highly robust in-plane and out-of-plane color face detection. , 2017, , . | | 1 |
| 110 | Advanced Orientation Robust Face Detection Algorithm Using Prominent Features and Hybrid Learning Techniques. , 2018, , . | | 1 |
| 111 | Highly Robust Dolphin Detection Algorithm in Occluded Cases. , 2018, , . | | 1 |
| 112 | Advanced Ear Detection Algorithm Using Faster R-CNN, Refocus Filters, and the Gradient Map. , 2018, , . | | 1 |
| 113 | Learning Based Noise Identification Techniques Using Time-Frequency Analysis and the U-Net. , 2019, , . | | 1 |
| 114 | Morphological Residue Encoding and Piecewise Approximation Techniques for Lossless Binary Image Compression. , 2019, , . | | 1 |
| 115 | Learning Based SLIC Superpixel Generation and Image Segmentation. , 2019, , . | | 1 |
| 116 | Multi-Viewpoint Patterns and Occlusions Handling Using Hybrid Features for Vehicle Tracking. , 2021, , . | | 1 |
| 117 | SVM-Based Root Identification Algorithm Using Ridge Features and Eroded Masks. , 2020, , . | | 1 |
| 118 | Graph Saliency Network: Using Graph Convolution Network on Saliency Detection. , 2020, , . | | 1 |
| 119 | Pixelwise Image Sharpness Based on the Weighted Response Ratios of Short and Long Edge Detectors. , 2021, , . | | 1 |
| 120 | Algorithm of Foveal Avascular Zone Detection with Denoising Mechanism Learning on Optical Coherence Tomography Angiography Images. , 2020, , . | | 1 |
| 121 | Vehicle Distance Estimation Method Based on Monocular Camera. , 2020, , . | | 1 |
| 122 | Learning Based Age Estimation Using Joint Loss and Facial Landmarks. , 2020, , . | | 1 |
| 123 | Adaptive Superpixel-Based Disparity Estimation Algorithm Using Plane Information and Disparity Refining Mechanism in Stereo Matching. Symmetry, 2022, 14, 1005. | 2.2 | 1 |
| 124 | Saving the bandwidth in the fractional domain by generalized Hilbert transform pair relations. , 0, , . | | 0 |
| 125 | 2-D affine generalized fractional Fourier transform. , 1999, , . | | 0 |
| 126 | Eigenfunctions of the canonical transform and the self-imaging problems in optical system. , 0, , . | | 0 |

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| 127 | Natural images phase encoding and encryption with the same spectrum amplitude. , 2009, , . | | 0 |
| 128 | Saliency detection improved by Principle Component Analysis and boundary scoring approach. , 2012, , . | | 0 |
| 129 | Generalized polynomial wigner spectrogram for high-resolution time-frequency analysis. , 2013, , . | | 0 |
| 130 | Noise removing for time-variant vocal signal by generalized modulation. , 2013, , . | | 0 |
| 131 | Facial expression recognition using expression-specific local binary patterns and layer denoising mechanism. , 2013, , . | | 0 |
| 132 | Less buffer sized efficienct compression algorithm based on column DCTs, Row DWTs, and predictive coding. , 2013, , . | | 0 |
| 133 | Integer multichannel transform. , 2013, , . | | 0 |
| 134 | A novel compression algorithm for IMFs of Hilbert-Huang transform. , 2014, , . | | 0 |
| 135 | Horizontal adaptive disparity estimation scheme for stereoscopic images. , 2015, , . | | 0 |
| 136 | An improved approach for face detection using superpixels, moment-based matching, and isosceles triangle matching. , 2016, , . | | 0 |
| 137 | A new adaptive coefficient scanning based on local and global prediction. Signal, Image and Video Processing, 2016, 10, 189-197. | 2.7 | 0 |
| 138 | High quality and efficient light field image rendering based on white image compensation. , 2017, , . | | 0 |
| 139 | Collagen image compression using the JPEG-based predictive lossless coding scheme. , 2017, , . | | 0 |
| 140 | Adaptive 3D cell segmentation and tracing algorithm using convex separation and histogram information for vivo images. , 2017, , . | | 0 |
| 141 | Disparity estimation using adaptive superpixel assignment and gradient weight, binary cost, and dilation based local matching algorithm. , 2017, , . | | 0 |
| 142 | So-BRIEF: Fast recognition of rectangular objects. , 2017, , . | | 0 |
| 143 | Generalized atom and dictionary design and compressive sensing for vocal signal expansion. , 2017, , . | | 0 |
| 144 | Generalized Jacket Transform with Arbitrary Integer Entries. , 2018, , . | | 0 |

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| 145 | Efficient Recurrent Detection for Visual Tracking. , 2018, , . | | 0 |
| 146 | Region Adaptive Mode Selection Algorithms for Image Super-Resolution. , 2019, , . | | 0 |
| 147 | Automatic Handwriting Verification and Suspect Identification for Chinese Characters Using Space and Frequency Domain Features. , 2019, , . | | 0 |
| 148 | Prominent facial feature and hybrid learning method-based advanced face detector robust to head-up, head-down, and arbitrary rotation cases. Signal, Image and Video Processing, 2021, 15, 147-154. | 2.7 | 0 |
| 149 | Deep Learning Based EBCOT Source Symbol Prediction Technique for JPEG2000 Image Compression Architecture. , 2020, , . | | 0 |
| 150 | High-Order Sychrosqueezing Transforms and Its Application for Highly Accurate Animal Voice Analysis. , 2021, , . | | 0 |
| 151 | Face and Head Detection for Back View Cases Using Gradient Features and Learning Architecture. , 2021, , . | | 0 |
| 152 | Age Estimation Model Using Multi-Class Architecture and Adaptive Regression Models. , 2021, , . | | 0 |
| 153 | Distribution-Adaptive Contexts and Probability Model Adjusting for Lossless Image Compression. , 2021, , . | | 0 |
| 154 | Deep Neural Network and Weighted Ridge Regression Based Pixel Prediction Technique. , 2020, , . | | 0 |
| 155 | Comprehensive Detail Refinement Network for Vehicle Re-identification. , 2020, , . | | 0 |
| 156 | Advanced Superpixel-Based Features and Machine Learning Based Saliency Detection. , 2020, , . | | 0 |
| 157 | Dynamic Motion Vector Searching Algorithm Using Window Adjustment, Global Motion Information, and Direction Priors. , 2020, , . | | 0 |
| 158 | All Characteristics Preservation: Single Image Dehazing based on Hierarchical Detail Reconstruction Wavelet Decomposition Network. , 2021, , . | | 0 |
| 159 | Polling Mechanism for Video Deepfake. , 2021, , . | | 0 |
| 160 | Border Compensation Scheme for Image Deblurring. , 2021, , . | | 0 |
| 161 | Superpixel and Plane Information Based Disparity Estimation Algorithm in Stereo Matching. , 2021, , . | | 0 |
| 162 | Single and Double Element Dynamic Programming Algorithm for Melody Matching. , 2022, , . | | 0 |

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|-----|--|----|-----------|
| 163 | Baseball Rotation Identification Algorithm Based on Seam Curvature Matching and Pixel Similarity. , 2021,, . | | 0 |
| 164 | Advanced Context-Modeling and Frequency Table Adjusting Methods for Motion Vector Encoding. , 2021,, . | | 0 |
| 165 | K-Means Clustering Based Adaptive Context Assignment Method for Image AC Term Encoding. , 2021,, . | | 0 |