Anne Humeau-Heurtier

List of Publications by Year
in descending order

95 papers	1,997 citations	304602 22 h-index	276775 41 g-index
95 all docs	95 docs citations	95 times ranked	1895 citing authors

#	Article	IF	Citations
1	Three-dimensional dispersion entropy for uterine fibroid texture quantification and post-embolization evaluation. Computer Methods and Programs in Biomedicine, 2022, 215, 106605.	2.6	2
2	Overview on prediction, detection, and classification of atrial fibrillation using wavelets and AI on ECG. Computers in Biology and Medicine, 2022, 142, 105168.	3.9	21
3	Re-Ordering of Hadamard Matrix Using Fourier Transform and Gray-Level Co-Occurrence Matrix for Compressive Single-Pixel Imaging in Low Resolution Images. IEEE Access, 2022, 10, 46975-46985.	2.6	7
4	Texture analysis using two-dimensional permutation entropy and amplitude-aware permutation entropy. Pattern Recognition Letters, 2022, 159, 150-156.	2.6	8
5	Colored Texture Analysis Fuzzy Entropy Methods with a Dermoscopic Application. Entropy, 2022, 24, 831.	1.1	7
6	Three-Dimensional Multiscale Fuzzy Entropy: Validation and Application to Idiopathic Pulmonary Fibrosis. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 100-107.	3.9	8
7	Machine learning for predictive data analytics in medicine: A review illustrated by cardiovascular and nuclear medicine examples. Clinical Physiology and Functional Imaging, 2021, 41, 113-127.	0.5	6
8	Age-related alterations on the capacities to navigate on a bike: use of a simulator and entropy measures. Medical and Biological Engineering and Computing, 2021, 59, 13-22.	1.6	1
9	Evaluation of COVID-19 chest computed tomography: A texture analysis based on three-dimensional entropy. Biomedical Signal Processing and Control, 2021, 68, 102582.	3.5	8
10	Multiscale permutation entropy for two-dimensional patterns. Pattern Recognition Letters, 2021, 150, 139-146.	2.6	22
11	Entropy Analysis in Health Informatics. Intelligent Systems Reference Library, 2021, , 123-143.	1.0	5
12	Parameter Analysis of Multiscale Two-Dimensional Fuzzy and Dispersion Entropy Measures Using Machine Learning Classification. Entropy, 2021, 23, 1303.	1.1	8
13	Multiscale Entropy Analysis of Short Signals: The Robustness of Fuzzy Entropy-Based Variants Compared to Full-Length Long Signals. Entropy, 2021, 23, 1620.	1.1	5
14	(Multiscale) Cross-Entropy Methods: A Review. Entropy, 2020, 22, 45.	1.1	47
15	Bidimensional Multiscale Fuzzy Entropy and Its Application to Pseudoxanthoma Elasticum. IEEE Transactions on Biomedical Engineering, 2020, 67, 2015-2022.	2.5	22
16	Multiscale Entropy Approaches and Their Applications. Entropy, 2020, 22, 644.	1.1	28
17	Study of the influence of Age: Use of Sample Entropy and CEEMDAN on Navigation Data Acquired from a Bike Simulator. , 2020, , .		1
18	Fuzzy Entropy Metrics for the Analysis of Biomedical Signals: Assessment and Comparison. IEEE Access, 2019, 7, 104833-104847.	2.6	29

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19	Bidimensional Fuzzy Entropy: Principle Analysis and Biomedical Applications. , 2019, 2019, 4811-4814.		4
20	Multichannel Timeâ€“Frequency Complexity Measures for the Analysis of Age-Related Changes in Neuromagnetic Resting-State Activity. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 2428-2434.	3.9	1
21	Two-dimensional dispersion entropy: An information-theoretic method for irregularity analysis of images. Signal Processing: Image Communication, 2019, 75, 178-187.	1.8	35
22	A Novel Multiscale Cross-Entropy Method Applied to Navigation Data Acquired with a Bike Simulator. , 2019, 2019, 733-736.		4
23	Bidimensional Colored Fuzzy Entropy Measure: a Cutaneous Microcirculation Study. , 2019, , .		3
24	A New Mutual Information Measure to Estimate Functional Connectivity: Preliminary Study. , 2019, 2019, 640-643.		2
25	Painless local pressure application to test microvascular reactivity to ischemia. Microvascular Research, 2019, 122, 13-21.	1.1	0
26	Multivariate improved weighted multiscale permutation entropy and its application on EEG data. Biomedical Signal Processing and Control, 2019, 52, 420-428.	3.5	10
27	Texture Feature Extraction Methods: A Survey. IEEE Access, 2019, 7, 8975-9000.	2.6	276
28	Characterization of Home-Acquired Blood Pressure Time Series Using Multiscale Entropy for Patients Treated Against Kidney Cancer. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2018, , 42-47.	0.2	1
29	Two-dimensional multiscale entropy analysis: Applications to image texture evaluation. Signal Processing, 2018, 147, 224-232.	2.1	40
30	Vasodilator response to galvanic current stimulation of the skin accurately detects acetylsalicylic acid intake: A study in 400 vascular patients. Atherosclerosis, 2018, 270, 139-145.	0.4	1
31	Effect of static scatterers in laser speckle contrast imaging: an experimental study on correlation and contrast. Physics in Medicine and Biology, 2018, 63, 015024.	1.6	15
32	Time-Varying Timeâ€“Frequency Complexity Measures for Epileptic EEG Data Analysis. IEEE Transactions on Biomedical Engineering, 2018, 65, 1681-1688.	2.5	14
33	Skin Alterations in Pseudoxanthoma Elasticum Patients Highlighted by the Bi-Dimensional Sample Entropy Algorithm. , 2018, , .		1
34	A New Approach to Sample Entropy of Multi-channel Signals: Application to EEG Signals. , 2018, , .		2
35	Measuring Complexity of Biomedical Signals. Complexity, 2018, 2018, 1-3.	0.9	3
36	Evaluation of Systemsâ€™ Irregularity and Complexity: Sample Entropy, Its Derivatives, and Their Applications across Scales and Disciplines. Entropy, 2018, 20, 794.	1.1	8

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37	Bi-dimensional multiscale entropy: Relation with discrete Fourier transform and biomedical application. Computers in Biology and Medicine, 2018, 100, 36-40.	3.9	18
38	Centered and Averaged Fuzzy Entropy to Improve Fuzzy Entropy Precision. Entropy, 2018, 20, 287.	1.1	17
39	Guest Editorial Special Issue on Cardiovascular System Monitoring and Therapy: Innovative Technologies and Internet of Things. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 725-728.	2.7	2
40	Monitoring microvascular perfusion variations with laser speckle contrast imaging using a view-based temporal template method. Microvascular Research, 2017, 111, 49-59.	1.1	16
41	Laser Speckle Contrast Imaging of Skin Changes in Arteriovenous Malformation. Circulation: Cardiovascular Imaging, 2017, 10, .	1.3	2
42	Bi-dimensional variational mode decomposition of laser speckle contrast imaging data: A clinical approach to critical limb ischemia?. Computers in Biology and Medicine, 2017, 86, 107-112.	3.9	9
43	Neurovascular microcirculatory vasodilation mediated by C-fibers and Transient receptor potential vanilloid-type-1 channels (TRPV 1) is impaired in type 1 diabetes. Scientific Reports, 2017, 7, 44322.	1.6	23
44	Bidimensional unconstrained optimization approach to EMD: An algorithm revealing skin perfusion alterations in pseudoxanthoma elasticum patients. Computer Methods and Programs in Biomedicine, 2017, 140, 233-239.	2.6	7
45	Multiscale PoincarÃ© plot analysis of time series from laser speckle contrast imaging data. Biomedical Signal Processing and Control, 2017, 38, 361-369.	3.5	3
46	Bidimensional Distribution Entropy to Analyze the Irregularity of Small-Sized Textures. IEEE Signal Processing Letters, 2017, 24, 1338-1342.	2.1	28
47	Performance Analysis of Spatial Laser Speckle Contrast Implementations. , 2017, , .		1
48	Laser based sensors for hemodynamic parameters measurement. , 2017, , .		0
49	Signal and Image Processing of Physiological Data: Methods for Diagnosis and Treatment Purposes. Computational and Mathematical Methods in Medicine, 2016, 2016, 1-2.	0.7	0
50	Multivariate Generalized Multiscale Entropy Analysis. Entropy, 2016, 18, 411.	1.1	13
51	Aging effect on microcirculation: A multiscale entropy approach on laser speckle contrast images. Medical Physics, 2016, 43, 4008-4016.	1.6	8
52	Laser Speckle Imaging to Monitor Microvascular Blood Flow: A Review. IEEE Reviews in Biomedical Engineering, 2016, 9, 106-120.	13.1	89
53	Refined Multiscale Hilbertâ€“Huang Spectral Entropy and Its Application to Central and Peripheral Cardiovascular Data. IEEE Transactions on Biomedical Engineering, 2016, 63, 2405-2415.	2.5	21
54	Visualization of perfusion changes with laser speckle contrast imaging using the method of motion history image. Microvascular Research, 2016, 107, 106-109.	1.1	17

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55	Refined scale-dependent permutation entropy to analyze systems complexity. Physica A: Statistical Mechanics and Its Applications, 2016, 450, 454-461.	1.2	35
56	Orientation-Independent Empirical Mode Decomposition for Images Based on Unconstrained Optimization. IEEE Transactions on Image Processing, 2016, 25, 2288-2297.	6.0	12
57	Multivariate refined composite multiscale entropy analysis. Physics Letters, Section A: General, Atomic and Solid State Physics, 2016, 380, 1426-1431.	0.9	18
58	Which wavelength is the best for arterial pulse waveform extraction using laser speckle imaging?. Biomedical Signal Processing and Control, 2016, 25, 188-195.	3.5	11
59	Analysis of microvascular perfusion with multi-dimensional complete ensemble empirical mode decomposition with adaptive noise algorithm: Processing of laser speckle contrast images recorded in healthy subjects, at rest and during acetylcholine stimulation. , 2015, 2015, 7370-3.		4
60	Microvascular blood flow monitoring with laser speckle contrast imaging using the generalized differences algorithm. Microvascular Research, 2015, 98, 54-61.	1.1	26
61	The Multiscale Entropy Algorithm and Its Variants: A Review. Entropy, 2015, 17, 3110-3123.	1.1	242
62	Processing of laser Doppler flowmetry signals from healthy subjects and patients with varicose veins: Information categorisation approach based on intrinsic mode functions and entropy computation. Medical Engineering and Physics, 2015, 37, 553-559.	0.8	4
63	Multi-Dimensional Complete Ensemble Empirical Mode Decomposition With Adaptive Noise Applied to Laser Speckle Contrast Images. IEEE Transactions on Medical Imaging, 2015, 34, 2103-2117.	5.4	20
64	Refined Composite Multiscale Permutation Entropy to Overcome Multiscale Permutation Entropy Length Dependence. IEEE Signal Processing Letters, 2015, 22, 2364-2367.	2.1	76
65	Laser speckle contrast analysis for pulse waveform extraction. , 2015, , .		0
66	Modified multiscale sample entropy computation of laser speckle contrast images and comparison with the original multiscale entropy algorithm. Journal of Biomedical Optics, 2015, 20, 121302.	1.4	4
67	Analysis of Laser Speckle Contrast Images Variability Using a Novel Empirical Mode Decomposition: Comparison of Results With Laser Doppler Flowmetry Signals Variability. IEEE Transactions on Medical Imaging, 2015, 34, 618-627.	5.4	28
68	Laser speckle contrast analysis for pulse waveform extraction. , 2015, , .		3
69	Excellent inter- and intra-observer reproducibility of microvascular tests using laser speckle contrast imaging. Clinical Hemorheology and Microcirculation, 2014, 58, 439-446.	0.9	25
70	Multiscale Compression Entropy of Microvascular Blood FlowSignals: Comparison of Results from Laser Speckle Contrastand Laser Doppler Flowmetry Data in Healthy Subjects. Entropy, 2014, 16, 5777-5795.	1.1	15
71	Microvascular Blood Flow with Laser Speckle Contrast Imaging: Analysis of Static Scatterers Effect through Modelling and Simulation. , 2014, , .		1
72	Comparative study to analyze the effect of aging on microvascular blood flow by processing laser speckle contrast images when Lorentzian and Gaussian velocity profiles are assumed for moving scatterers. , 2014, , .		1

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73	Use of laser speckle and entropy computation to segment images of diffuse objects with longitudinal motion. , 2014, , .		0
74	Laser speckle contrast imaging: age-related changes in microvascular blood flow and correlation with pulse-wave velocity in healthy subjects. Journal of Biomedical Optics, 2014, 20, 051010.	1.4	17
75	Assessment of endothelial function by acetylcholine iontophoresis: Impact of inter-electrode distance and electrical cutaneous resistance. Microvascular Research, 2014, 93, 114-118.	1.1	8
76	Effect of skin temperature on skin endothelial function assessment. Microvascular Research, 2013, 88, 56-60.	1.1	25
77	Blood Perfusion Values of Laser Speckle Contrast Imaging and Laser Doppler Flowmetry: Is a Direct Comparison Possible?. IEEE Transactions on Biomedical Engineering, 2013, 60, 1259-1265.	2.5	27
78	Self-mixing microprobe for monitoring microvascular perfusion in rat brain. Medical and Biological Engineering and Computing, 2013, 51, 103-112.	1.6	6
79	Skin perfusion evaluation between laser speckle contrast imaging and laser Doppler flowmetry. Optics Communications, 2013, 291, 482-487.	1.0	28
80	Complexity quantification of signals from the heart, the macrocirculation and the microcirculation through a multiscale entropy analysis. Biomedical Signal Processing and Control, 2013, 8, 341-345.	3.5	7
81	Multiscale Entropy Study of Medical Laser Speckle Contrast Images. IEEE Transactions on Biomedical Engineering, 2013, 60, 872-879.	2.5	30
82	Relevance of Laser Doppler and Laser Speckle Techniques for Assessing Vascular Function: State of the Art and Future Trends. IEEE Transactions on Biomedical Engineering, 2013, 60, 659-666.	2.5	78
83	Linguistic Analysis of Laser Speckle Contrast Images Recorded at Rest and During Biological Zero: Comparison With Laser Doppler Flowmetry Data. IEEE Transactions on Medical Imaging, 2013, 32, 2311-2321.	5.4	21
84	Multifractal analysis of laser Doppler flowmetry signals before and after arm-cranking exercise in an older healthy population. Medical Physics, 2013, 40, 020702.	1.6	3
85	Reproducibility of Non-Invasive Assessment of Skin Endothelial Function Using Laser Doppler Flowmetry and Laser Speckle Contrast Imaging. PLoS ONE, 2013, 8, e61320.	1.1	57
86	Assessment of Skin Microvascular Function and Dysfunction With Laser Speckle Contrast Imaging. Circulation: Cardiovascular Imaging, 2012, 5, 155-163.	1.3	122
87	Spectral analysis of laser Doppler flowmetry signals. , 2012, , .		3
88	Impact of Experimental Conditions on Noncontact Laser Recordings in Microvascular Studies. Microcirculation, 2012, 19, 669-675.	1.0	26
89	Assessing spatial resolution versus sensitivity from laser speckle contrast imaging: application to frequency analysis. Medical and Biological Engineering and Computing, 2012, 50, 1017-1023.	1.6	11
90	Clinical use of laser speckle techniques: beyond the sole mapping. Medical and Biological Engineering and Computing, 2012, 50, 1001-1002.	1.6	1

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91	Laser speckle contrast imaging: Multifractal analysis of data recorded in healthy subjects. Medical Physics, 2012, 39, 5849-5856.	1.6	9
92	Laser speckle contrast imaging of the skin: interest in processing the perfusion data. Medical and Biological Engineering and Computing, 2012, 50, 103-105.	1.6	16
93	Study of time reversibility/irreversibility of cardiovascular data: theoretical results and application to laser Doppler flowmetry and heart rate variability signals. Physics in Medicine and Biology, 2012, 57, 4335-4351.	1.6	5
94	Multifractal analysis of heart rate variability and laser Doppler flowmetry fluctuations:comparison of results from different numerical methods. Physics in Medicine and Biology, 2010, 55, 6279-6297.	1.6	22
95	Multiscale entropy of laser Doppler flowmetry signals in healthy human subjects. Medical Physics, 2010, 37, 6142-6146.	1.6	21