Hamid Behnam

List of Publications by Year in Descending Order

95 papers	812 citations	16 h-index	24 g-index
106 ext. papers	1,068 ext. citations	2.7 avg, IF	4.5 L-index

#	Paper	IF	Citations
95	High-resolution and high-contrast ultrafast ultrasound imaging using coherent plane wave adaptive compounding. *Biomedical Signal Processing and Control*, **2022**, 73, 103446	4.9	1
94	A deep learning approach for the automatic recognition of prosthetic mitral valve in echocardiographic images. *Computers in Biology and Medicine*, **2021**, 133, 104388	7	5
93	Spatiotemporal registration and fusion of transthoracic echocardiography and volumetric coronary artery tree. *International Journal of Computer Assisted Radiology and Surgery*, **2021**, 16, 1493-1505	3.9	
92	Compressive sensing theory and neighborhood spatial-temporal information for frame rate improvement of dynamic ultrasonic imaging. *International Journal of Imaging Systems and Technology*, **2021**, 31, 1334-1356	2.5	0
91	Speckle Tracking Accuracy Enhancement by Temporal Super-Resolution of Three-Dimensional Echocardiography Images. *Journal of Medical Signals and Sensors*, **2021**, 11, 177-184	1	1
90	Diagnosis of multiple sclerosis using graph-theoretic measures of cognitive task-based functional connectivity networks. *IEEE Transactions on Cognitive and Developmental Systems*, **2021**, 1-1	3	1
89	Echocardiography image enhancement using texture-cartoon separation. *Computers in Biology and Medicine*, **2021**, 134, 104535	7	1
88	Coherent Plane Wave Compounding Combined With Tensor Completion Applied for Ultrafast Imaging. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2021**, 68, 3094-3103	3.2	4
87	Efficient synthetic transmit aperture ultrasound based on tensor completion. *Ultrasonics*, **2021**, 117, 106553	3.5	3
86	Automatic morphological classification of mitral valve diseases in echocardiographic images based on explainable deep learning methods.. *International Journal of Computer Assisted Radiology and Surgery*, **2021**, 17, 413	3.9	1
85	A fast and high frame rate adaptive beamforming using DCT-based RF-line recovery in line-by-line ultrasound imaging. *International Journal of Imaging Systems and Technology*, **2020**, 30, 1080-1094	2.5	5
84	Temporal Super-resolution of Ultrasound Imaging Using Matrix Completion. *Ultrasonic Imaging*, **2020**, 42, 115-134	1.9	1
83	Temporal super-resolution of 2D/3D echocardiography using cubic B-spline interpolation. *Biomedical Signal Processing and Control*, **2020**, 58, 101868	4.9	9
82	Skull acoustic aberration correction in photoacoustic microscopy using a vector space similarity model: a proof-of-concept simulation study. *Biomedical Optics Express*, **2020**, 11, 5542-5556	3.5	10
81	Novel approach for automatic mid-diastole frame detection in 2D echocardiography sequences for performing planimetry of the mitral valve orifice. *IET Image Processing*, **2020**, 14, 2890-2900	1.7	1
80	Low-complexity adaptive minimum variance ultrasound beam-former based on diagonalization. *Biomedical Signal Processing and Control*, **2020**, 62, 102110	4.9	3
79	Carotid Wall Longitudinal Motion in Ultrasound Imaging: An Expert Consensus Review. *Ultrasound in Medicine and Biology*, **2020**, 46, 2605-2624	3.5	11

78	Characterisation of the effects of age and body mass index on the ultrasound carotid artery wall using RF time series. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*, **2020**, 8, 134-142	0.9	
77	Computer aided detection in automated 3-D breast ultrasound images: a survey. *Artificial Intelligence Review*, **2020**, 53, 1919-1941	9.7	7
76	Analysis of brain functional connectivity network in MS patients constructed by modular structure of sparse weights from cognitive task-related fMRI. *Australasian Physical and Engineering Sciences in Medicine*, **2019**, 42, 921-938	1.9	2
75	Skull's Photoacoustic Attenuation and Dispersion Modeling with Deterministic Ray-Tracing: Towards Real-Time Aberration Correction. *Sensors*, **2019**, 19,	3.8	14
74	Temporal super resolution of ultrasound images using compressive sensing. *Biomedical Signal Processing and Control*, **2019**, 52, 53-68	4.9	9
73	Granger causality analysis in combination with directed network measures for classification of MS patients and healthy controls using task-related fMRI. *Computers in Biology and Medicine*, **2019**, 115, 103495	7	16
72	Skull aberration modeling: towards photoacoustic human brain imaging **2019**,		1
71	High-Intensity Focused Ultrasound Lesion Detection Using Adaptive Compressive Sensing Based on Empirical Mode Decomposition. *Journal of Medical Signals and Sensors*, **2019**, 9, 24-32	1	1
70	Mass Segmentation in Automated 3-D Breast Ultrasound Using Adaptive Region Growing and Supervised Edge-Based Deformable Model. *IEEE Transactions on Medical Imaging*, **2018**, 37, 918-928	11.7	26
69	Altered topological properties of brain networks in the early MS patients revealed by cognitive task-related fMRI and graph theory. *Biomedical Signal Processing and Control*, **2018**, 40, 385-395	4.9	9
68	High-Intensity Focused Ultrasound Thermal Lesion Detection Using Entropy Imaging of Ultrasound Radio Frequency Signal Time Series. *Journal of Medical Ultrasound*, **2018**, 26, 24-30	0.8	5
67	Skull's acoustic attenuation and dispersion modeling on photoacoustic signal **2018**,		3
66	Breast cancer detection in automated 3D breast ultrasound using iso-contours and cascaded RUSBoosts. *Ultrasonics*, **2017**, 79, 68-80	3.5	26
65	Toward high-intensity focused ultrasound lesion quantification using compressive sensing theory. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2017**, 231, 1152-1164	1.7	1
64	Quantification of Left Ventricle Function in Stress Echocardiography Using Endocardial Area Centroid Trajectory. *Journal of Medical Signals and Sensors*, **2017**, 7, 49-52	1	
63	Characterizing Awake and Anesthetized States Using a Dimensionality Reduction Method. *Journal of Medical Systems*, **2016**, 40, 13	5.1	25
62	Echocardiography noise reduction using sparse representation. *Computers and Electrical Engineering*, **2016**, 53, 301-318	4.3	2
61	Temporal Super Resolution Enhancement of Echocardiographic Images Based on Sparse Representation. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2016**, 63, 6-19	3.2	16

60	Radio Frequency Ultrasound Time Series Signal Analysis to Evaluate High-intensity Focused Ultrasound Lesion Formation Status in Tissue. *Journal of Medical Signals and Sensors*, **2016**, 6, 91-8	1	4
59	Echocardiography without electrocardiogram using nonlinear dimensionality reduction methods. *Journal of Medical Ultrasonics (2001)*, **2015**, 42, 137-49	1.4	7
58	Letter to the editor regarding paper "Automatic computation of left ventricular volume changes over a cardiac cycle from echocardiography images by nonlinear dimensionality reduction". *Journal of Digital Imaging*, **2015**, 28, 130-1	5.3	1
57	Automatic computation of left ventricular volume changes over a cardiac cycle from echocardiography images by nonlinear dimensionality reduction. *Journal of Digital Imaging*, **2015**, 28, 91-8	5.3	14
56	ORDER PATTERNS RECURRENCE ANALYSIS OF ELECTROENCEPHALOGRAM DURING SEVOFLURANE ANESTHESIA. *Biomedical Engineering - Applications, Basis and Communications*, **2015**, 27, 1550049	0.6	2
55	Frontal-temporal synchronization of EEG signals quantified by order patterns cross recurrence analysis during propofol anesthesia. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, **2015**, 23, 468-74	4.8	24
54	Monitoring depth of anesthesia using combination of EEG measure and hemodynamic variables. *Cognitive Neurodynamics*, **2015**, 9, 41-51	4.2	38
53	AUTOMATIC AND CONCURRENT DETERMINATION OF OPTIMAL VALUES OF NONLOCAL MEANS FILTERING PARAMETERS BASED ON BAYESIAN FORMULATION IN IVUS IMAGES. *Biomedical Engineering - Applications, Basis and Communications*, **2015**, 27, 1550052	0.6	
52	Real-time monitoring of high-intensity focused ultrasound thermal therapy using the manifold learning method. *Ultrasound in Medicine and Biology*, **2014**, 40, 2841-50	3.5	6
51	. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2014**, 61, 620-630	3.2	11
50	MRI-PET image fusion based on NSCT transform using local energy and local variance fusion rules. *Journal of Medical Engineering and Technology*, **2014**, 38, 211-9	1.8	23
49	DYNAMIC CHANGES IN THE ACOUSTO-MECHANICAL AND STATISTICAL PARAMETERS OF TISSUE DURING HIGH INTENSITY FOCUSED ULTRASOUND (HIFU) TREATMENT. *Biomedical Engineering - Applications, Basis and Communications*, **2014**, 26, 1450009	0.6	1
48	Study of the effects of age and body mass index on the carotid wall vibration: extraction methodology and analysis. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2014**, 228, 714-29	1.7	5
47	Depth of anesthesia indicator using combination of complexity and frequency measures **2014**,		2
46	Nakagami imaging for detecting thermal lesions induced by high-intensity focused ultrasound in tissue. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2014**, 228, 19-26	1.7	23
45	Ultrasound elastography using empirical mode decomposition analysis. *Journal of Medical Signals and Sensors*, **2014**, 4, 18-26	1	1
44	Measuring the effect of aging on vibrations of the carotid artery wall using empirical mode decomposition method. *Journal of Medical Signals and Sensors*, **2014**, 4, 27-34	1	
43	Measuring the effect of aging on vibrations of the carotid artery wall using empirical mode decomposition method. *Journal of Medical Signals and Sensors*, **2014**, 4, 27	1	1

42	Detection and identification of first and second heart sounds using empirical mode decomposition. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, **2013**, 227, 976-87	1.7	9
41	**2013**,		3
40	Monitoring the depth of anesthesia using entropy features and an artificial neural network. *Journal of Neuroscience Methods*, **2013**, 218, 17-24	3	48
39	Measuring Left Ventricular Volumes in Two-Dimensional Echocardiography Image Sequence Using Level-set Method for Automatic Detection of End-Diastole and End-systole Frames. *Research in Cardiovascular Medicine*, **2013**, 2, 39-45	0.4	4
38	Automatic assessment of regional and global wall motion abnormalities in echocardiography images by nonlinear dimensionality reduction. *Medical Physics*, **2013**, 40, 052904	4.4	5
37	Automatic segmentation of brain MRI in high-dimensional local and non-local feature space based on sparse representation. *Magnetic Resonance Imaging*, **2013**, 31, 733-41	3.3	6
36	The effect of ultrasound on the expression of CNTF gene, a possible cause of ultrasound influence on the rate of injured peripheral nerve regeneration. *Australasian Physical and Engineering Sciences in Medicine*, **2013**, 36, 323-9	1.9	8
35	Automatic classification of left ventricular regional wall motion abnormalities in echocardiography images using nonrigid image registration. *Journal of Digital Imaging*, **2013**, 26, 909-19	5.3	15
34	CARDIAC-BORDER SEGMENTATION IN 2D ECHOCARDIOGRAPHY IMAGE SEQUENCE USING LEVEL SET METHOD TO MEASURE GLOBAL PARAMETERS. *Biomedical Engineering - Applications, Basis and Communications*, **2013**, 25, 1350049	0.6	1
33	Secure transmission of images based on chaotic systems and cipher block chaining. *Journal of Electronic Imaging*, **2013**, 22, 013025	0.7	1
32	FULLY AUTOMATIC SEGMENTATION OF LEFT VENTRICLE IN A SEQUENCE OF ECHOCARDIOGRAPHY IMAGES OF ONE CARDIAC CYCLE BY DYNAMIC DIRECTIONAL VECTOR FIELD CONVOLUTION (DDVFC) METHOD AND MANIFOLD LEARNING. *Biomedical Engineering - Applications, Basis and Communications*, **2013**, 25, 1350022	0.6	1
31	Measuring the effects of sevoflurane on electroencephalogram using sample entropy. *Acta Anaesthesiologica Scandinavica*, **2012**, 56, 880-9	1.9	29
30	ADAPTIVE SPARSE REPRESENTATION FOR MRI NOISE REMOVAL. *Biomedical Engineering - Applications, Basis and Communications*, **2012**, 24, 383-394	0.6	
29	On the Security of Mutual Authentication Protocols for RFID Systems: The Case of Wei et al.'s Protocol. *Lecture Notes in Computer Science*, **2012**, 90-103	0.9	1
28	Left ventricle wall motion quantification from echocardiographic images by non-rigid image registration. *International Journal of Computer Assisted Radiology and Surgery*, **2012**, 7, 769-83	3.9	9
27	Detection of abnormalities for diagnosing of children with autism disorders using of quantitative electroencephalography analysis. *Journal of Medical Systems*, **2012**, 36, 957-63	5.1	60
26	Classification of benign and malignant breast masses based on shape and texture features in sonography images. *Journal of Medical Systems*, **2012**, 36, 1621-7	5.1	45
25	Using the Hilbert-Huang transform to measure the electroencephalographic effect of propofol. *Physiological Measurement*, **2012**, 33, 271-85	2.9	27

24	The effects of altered ultrasound parameters on the recovery of sciatic nerve injury. *Iranian Biomedical Journal*, **2012**, 16, 107-12	2	13
23	A Feed-forward Neural Network Algorithm to Detect Thermal Lesions Induced by High Intensity Focused Ultrasound in Tissue. *Journal of Medical Signals and Sensors*, **2012**, 2, 192-202	1	3
22	A feed-forward neural network algorithm to detect thermal lesions induced by high intensity focused ultrasound in tissue. *Journal of Medical Signals and Sensors*, **2012**, 2, 192	1	5
21	Noise reduction of echocardiography images using Isomap algorithm **2011**,		1
20	Automatic detection of end systole and end diastole within a sequence of 2-D echocardiographic images using modified Isomap algorithm **2011**,		3
19	Noise reduction in echocardigraphy images using Contourlet transform **2011**,		2
18	A New Method for Pseudo-increasing Frame Rates of Echocardiography Images Using Manifold Learning. *Journal of Medical Signals and Sensors*, **2011**, 1, 107-12	1	
17	A new method for pseudo-increasing frame rates of echocardiography images using manifold learning. *Journal of Medical Signals and Sensors*, **2011**, 1, 107	1	6
16	Modeling Twinkling Artifact in Sonography. *International Conference on Bioinformatics and Biomedical Engineering: [proceedings] International Conference on Bioinformatics and Biomedical Engineering*, **2010**,		10
15	Automatic detection of end-diastole and end-systole from echocardiography images using manifold learning. *Physiological Measurement*, **2010**, 31, 1091-103	2.9	30
14	A New Approach to Compression of Medical Ultrasound Images Using Wavelet Transform **2010**,		5
13	Breast mass classification on sonographic images on the basis of shape analysis. *Journal of Medical Ultrasonics (2001)*, **2010**, 37, 181-6	1.4	7
12	Abnormalities of quantitative electroencephalography in children with Asperger disorder in various conditions. *Research in Autism Spectrum Disorders*, **2009**, 3, 538-546	3	20
11	Combined Pulse Compression and Adaptive Beamforming in Coded Excitation Ultrasound Medical Imaging **2009**,		3
10	Abnormalities in Connectivity of Quantitative Electroencephalogram Background Activity in Asperger Disorders with Short Time Fourier Transform and Coherence Values **2008**,		1
9	Abnormalities in Connectivity of Quantitative Electroencephalogram Background Activity in Autism Disorders especially in Left Hemisphere and Right Temporal **2008**,		4
8	Connectivity Analysis of Quantitative Electroencephalogram Background Activity in Autism Disorders with Short Time Fourier Transform and Coherence Values **2008**,		10
7	A Modified Time-Domain Approach for Modelling the Ultrasound Signal from Blood-Flow. *Ultrasound*, **2008**, 16, 160-164	1.3	2

6	Extracting the small vibrations of a vessel wall. *Physiological Measurement*, **2008**, 29, 1041-53	2.9	3
5	Analysis of quantitative Electroencephalogram background activity in Autism disease patients with Lempel-Ziv complexity and Short Time Fourier Transform measure **2007**,		11
4	Analyses of EEG background activity in Autism disorders with fast Fourier transform and short time Fourier measure **2007**,		3
3	A novel method for breast cancer prognosis using wavelet packet based neural network. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, **2005**, 2005, 3414-7		10
2	Phase correction on ultrasound speed measurement.. *Journal of the Acoustical Society of Japan (E)*, **1998**, 19, 141-150		4
1	Hypertrophic cardiomyopathy (HCM) and hypertensive heart disease (HHD) diagnosis using echocardiography and electrocardiography. *Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization*,1-9	0.9	0