Babak

List of Publications by Year
in descending order

58 **papers**	1,719 **citations**	430442 18 **h-index**	288905 40 **g-index**
59 **all docs**	59 **docs citations**	59 **times ranked**	1349 **citing authors**

#	Article	IF	Citations
1	Detection of sleep apnea using deep neural networks and single-lead ECG signals. Biomedical Signal Processing and Control, 2022, 71, 103125.	3.5	29
2	A novel sophisticated form of DMAS beamformer: Application to breast cancer detection. Biomedical Signal Processing and Control, 2022, 74, 103516.	3.5	4
3	A new data covariance matrix estimation for improving minimum variance brain source localization. Computers in Biology and Medicine, 2022, 143, 105324.	3.9	3
4	Classification of code-modulated visual evoked potentials using adaptive modified covariance beamformer and EEG signals. Computer Methods and Programs in Biomedicine, 2022, 221, 106859.	2.6	2
5	Rest-fMRI based comparison study between autism spectrum disorder and typically control using graph frequency bands. Computers in Biology and Medicine, 2022, 146, 105643.	3.9	6
6	Automatic detection of code-modulated visual evoked potentials using novel covariance estimators and short-time EEG signals. Computers in Biology and Medicine, 2022, 147, 105771.	3.9	1
7	User Parameter-Free Minimum Variance Beamformer in Medical Ultrasound Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2397-2406.	1.7	10
8	Seizure onset detection based on detection of changes in brain activity quantified by evolutionary game theory model. Computer Methods and Programs in Biomedicine, 2021, 199, 105899.	2.6	2
9	Automatic seizure detection using orthogonal matching pursuit, discrete wavelet transform, and entropy based features of EEG signals. Computers in Biology and Medicine, 2021, 131, 104250.	3.9	74
10	Automatic detection of non-apneic sleep arousal regions from polysomnographic recordings. Biomedical Signal Processing and Control, 2021, 66, 102394.	3.5	4
11	Minimum Variance Combined With Modified Delay Multiply-and-Sum Beamforming for Plane-Wave Compounding. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1641-1652.	1.7	18
12	Adaptive Spectral Doppler Estimation Based on the Modified Amplitude Spectrum Capon. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 1664-1675.	1.7	3
13	Weighted delay-and-sum beamformer for breast cancer detection using microwave imaging. Measurement: Journal of the International Measurement Confederation, 2021, 177, 109283.	2.5	12
14	Automatic Sleep Stage Classification Using Temporal Convolutional Neural Network and New Data Augmentation Technique from Raw Single-Channel EEG. Computer Methods and Programs in Biomedicine, 2021, 204, 106063.	2.6	59
15	Automatic detection of epileptic seizures using Riemannian geometry from scalp EEG recordings. Medical and Biological Engineering and Computing, 2021, 59, 1431-1445.	1.6	16
16	A new extension of DMAS ultrasound nonlinear beamformer using the third degree terms with low computational complexity. , 2021, , .		3
17	Fast Delay-Multiply-and-Sum Beamformer: Application to Confocal Microwave Imaging. IEEE Antennas and Wireless Propagation Letters, 2020, 19, 14-18.	2.4	13
18	Automatic classification of apnea and normal subjects using new features extracted from HRV and ECG-derived respiration signals. Biomedical Signal Processing and Control, 2020, 59, 101927.	3.5	44

#	Article	IF	Citations
19	Adaptive transverse blood velocity estimation in medical ultrasound: A simulation study. Ultrasonics, 2020, 108, 106209.	2.1	1
20	Performance evaluation of the spectral autocorrelation function and autoregressive models for automated sleep apnea detection using single-lead ECG signal. Computer Methods and Programs in Biomedicine, 2020, 195, 105626.	2.6	29
21	Eigenspace-based minimum variance beamformer combined with sign coherence factor: Application to linear-array photoacoustic imaging. Ultrasonics, 2020, 108, 106174.	2.1	13
22	Subspace-Based Blood Power Spectral Capon Combined with Wiener Postfilter to Provide a High-Quality Velocity Waveform with Low Mathematical Complexity. Ultrasound in Medicine and Biology, 2020, 46, 1783-1801.	0.7	2
23	Supervised Saliency Map Driven Segmentation of Lesions in Dermoscopic Images. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 509-518.	3.9	51
24	Automatic Detection of Obstructive Sleep Apnea Using Wavelet Transform and Entropy-Based Features From Single-Lead ECG Signal. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 1011-1021.	3.9	95
25	High Resolution Minimum Variance Beamformer With Low Complexity in Medical Ultrasound Imaging. Ultrasound in Medicine and Biology, 2019, 45, 2805-2818.	0.7	8
26	Minimum variance based fusion of fundamental and second harmonic ultrasound imaging: Simulation and experimental study. Ultrasonics, 2019, 96, 203-213.	2.1	4
27	Transverse Spectral Analysis in Stenosis Diagnosis Using Transversely Oscillating Acoustic Field. , 2019, , .		0
28	Modified Dominant Mode Rejection Beamformer for Localizing Brain Activities When Data Covariance Matrix Is Rank Deficient. IEEE Transactions on Biomedical Engineering, 2019, 66, 2241-2252.	2.5	2
29	An Adaptive Synthetic Aperture Method Applied to Ultrasound Tissue Harmonic Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 557-569.	1.7	12
30	A low complexity minimum variance beamformer for ultrasound imaging using dominant mode rejection. Ultrasonics, 2018, 85, 49-60.	2.1	16
31	Spatio-temporal Reconstruction of Neural Sources Using Indirect Dominant Mode Rejection. Brain Topography, 2018, 31, 591-607.	0.8	2
32	Adaptive beamforming with automatic diagonal loading in medical ultrasound imaging. , 2018, , .		2
33	Robust heartbeat detection using multimodal recordings and ECG quality assessment with signal amplitudes dispersion. Computer Methods and Programs in Biomedicine, 2018, 163, 169-182.	2.6	6
34	Melanoma recognition in dermoscopy images using lesion's peripheral region information. Computer Methods and Programs in Biomedicine, 2018, 163, 143-153.	2.6	30
35	Iterative Minimum Variance Beamformer with Low Complexity for Medical Ultrasound Imaging. Ultrasound in Medicine and Biology, 2018, 44, 1882-1890.	0.7	11
36	Fetal ECG extraction via Type-2 adaptive neuro-fuzzy inference systems. Computer Methods and Programs in Biomedicine, 2017, 142, 101-108.	2.6	13

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37	A Fast and Robust Beamspace Adaptive Beamformer for Medical Ultrasound Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 947-958.	1.7	31
38	Combined phase screen aberration correction and minimum variance beamforming in medical ultrasound. Ultrasonics, 2017, 75, 71-79.	2.1	14
39	2-stage Delay-Multiply-And-Sum beamforming for breast cancer detection using Microwave Imaging. , 2017, , .		1
40	Automated diagnosis of coronary artery disease (CAD) patients using optimized SVM. Computer Methods and Programs in Biomedicine, 2017, 138, 117-126.	2.6	128
41	A general algorithm for automatic lesion segmentation in dermoscopy images. , 2016, , .		9
42	An improved minimum variance beamforming applied to plane-wave imaging in medical ultrasound. , 2016, , .		16
43	Low complex subspace minimum variance beamformer for medical ultrasound imaging. Ultrasonics, 2016, 66, 43-53.	2.1	30
44	Amplitude and phase estimator combined with the Wiener postfilter for medical ultrasound imaging. Journal of Medical Ultrasonics (2001), 2016, 43, 11-18.	0.6	7
45	Combining the APES and Minimum-variance Beamformers for Adaptive Ultrasound Imaging. Ultrasonic Imaging, 2016, 38, 239-253.	1.4	3
46	Computational Complexity Reduction of Synthetic-aperture Focus in Ultrasound Imaging Using Frequency-domain Reconstruction. Ultrasonic Imaging, 2016, 38, 175-193.	1.4	16
47	Weighted Capon beamformer combined with coded excitation in ultrasound imaging. Journal of Medical Ultrasonics (2001), 2015, 42, 477-488.	0.6	4
48	Fourier beamformation of multistatic synthetic aperture ultrasound imaging. , 2015, , .		4
49	Generalized discriminant analysis for congestive heart failure risk assessment based on long-term heart rate variability. Computer Methods and Programs in Biomedicine, 2015, 122, 191-198.	2.6	40
50	Phase aberration correction in minimum variance beamforming of ultrasound imaging. , 2015, , .		3
51	Investigation of the effects of transducer Parameters on adaptive MV beamformers in medical ultrasound applications. , 2013, , .		2
52	A low-complexity adaptive beamformer for ultrasound imaging using structured covariance matrix. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 660-667.	1.7	86
53	AN ADAPTIVE BACKPROPAGATION NEURAL NETWORK FOR ARRHYTHMIA CLASSIFICATION USING R-R INTERVAL SIGNAL. Neural Network World, 2012, 22, 535-548.	0.5	12
54	Contrast enhancement and robustness improvement of adaptive ultrasound imaging using forward-backward minimum variance beamforming. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 858-867.	1.7	83

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55	Structures of the recurrence plot of heart rate variability signal as a tool for predicting the onset of paroxysmal atrial fibrillation. Journal of Medical Signals and Sensors, 2011, 1, 113-21.	0.5	5
56	Eigenspace-based minimum variance beamforming applied to medical ultrasound imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2381-2390.	1.7	145
57	Minimum variance beamforming combined with adaptive coherence weighting applied to medical ultrasound imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1923-1931.	1.7	182
58	Support vector machine-based arrhythmia classification using reduced features of heart rate variability signal. Artificial Intelligence in Medicine, 2008, 44, 51-64.	3.8	298