Bin He

List of Publications by Year
in descending order

288 papers	14,722 citations	16411 64 h-index	26548 107 g-index
302 all docs	302 docs citations	302 times ranked	9822 citing authors

#	Article	IF	Citations
1	Quadcopter control in three-dimensional space using a noninvasive motor imagery-based brainâ€"computer interface. Journal of Neural Engineering, 2013, 10, 046003.	1.8	452
2	Estimation of the cortical functional connectivity with the multimodal integration of high-resolution EEG and fMRI data by directed transfer function. NeuroImage, 2005, 24, 118-131.	2.1	362
3	Brainâ€"Computer Interfaces Using Sensorimotor Rhythms: Current State and Future Perspectives. IEEE Transactions on Biomedical Engineering, 2014, 61, 1425-1435.	2.5	361
4	Noninvasive Electroencephalogram Based Control of a Robotic Arm for Reach and Grasp Tasks. Scientific Reports, 2016, 6, 38565.	1.6	333
5	The standardized EEG electrode array of the IFCN. Clinical Neurophysiology, 2017, 128, 2070-2077.	0.7	320
6	Comparison of different cortical connectivity estimators for high-resolution EEG recordings. Human Brain Mapping, 2007, 28, 143-157.	1.9	317
7	Graph analysis of epileptogenic networks in human partial epilepsy. Epilepsia, 2011, 52, 84-93.	2.6	295
8	Electric Dipole Tracing in the Brain by Means of the Boundary Element Method and Its Accuracy. IEEE Transactions on Biomedical Engineering, 1987, BME-34, 406-414.	2.5	291
9	EEG Source Imaging Enhances the Decoding of Complex Right-Hand Motor Imagery Tasks. IEEE Transactions on Biomedical Engineering, 2016, 63, 4-14.	2.5	277
10	Electrophysiological Imaging of Brain Activity and Connectivityâ€"Challenges and Opportunities. IEEE Transactions on Biomedical Engineering, 2011, 58, 1918-1931.	2.5	239
11	Noninvasive neuroimaging enhances continuous neural tracking for robotic device control. Science Robotics, 2019, 4, .	9.9	227
12	Binocular Rivalry Requires Visual Attention. Neuron, 2011, 71, 362-369.	3.8	224
13	Negative covariation between task-related responses in alpha/beta-band activity and BOLD in human sensorimotor cortex: An EEG and fMRI study of motor imagery and movements. NeuroImage, 2010, 49, 2596-2606.	2.1	222
14	A wavelet-based timeâ€"frequency analysis approach for classification of motor imagery for brainâ€"computer interface applications. Journal of Neural Engineering, 2005, 2, 65-72.	1.8	216
15	Continuous Three-Dimensional Control of a Virtual Helicopter Using a Motor Imagery Based Brain-Computer Interface. PLoS ONE, 2011, 6, e26322.	1.1	204
16	eConnectome: A MATLAB toolbox for mapping and imaging of brain functional connectivity. Journal of Neuroscience Methods, 2011, 195, 261-269.	1.3	201
17	Magnetoacoustic tomography with magnetic induction (MAT-MI). Physics in Medicine and Biology, 2005, 50, 5175-5187.	1.6	193
18	Motor imagery classification by means of source analysis for brainâ€"computer interface applications. Journal of Neural Engineering, 2004, 1, 135-141.	1.8	189

#	Article	IF	Citations
19	EEG Control of a Virtual Helicopter in 3-Dimensional Space Using Intelligent Control Strategies. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2010, 18, 581-589.	2.7	188
20	Estimation of in vivo human brain-to-skull conductivity ratio from simultaneous extra- and intra-cranial electrical potential recordings. Clinical Neurophysiology, 2005, 116, 456-465.	0.7	180
21	Electrophysiological Source Imaging: A Noninvasive Window to Brain Dynamics. Annual Review of Biomedical Engineering, 2018, 20, 171-196.	5.7	176
22	Ictal source analysis: Localization and imaging of causal interactions in humans. NeuroImage, 2007, 34, 575-586.	2.1	171
23	Classifying EEG-based motor imagery tasks by means of time–frequency synthesized spatial patterns. Clinical Neurophysiology, 2004, 115, 2744-2753.	0.7	168
24	Noninvasive Brain-Computer Interfaces Based on Sensorimotor Rhythms. Proceedings of the IEEE, 2015, 103, 907-925.	16.4	166
25	Electrophysiological Brain Connectivity: Theory and Implementation. IEEE Transactions on Biomedical Engineering, 2019, 66, 2115-2137.	2.5	163
26	Defecting or Not Defecting: How to "Read" Human Behavior during Cooperative Games by EEG Measurements. PLoS ONE, 2010, 5, e14187.	1.1	151
27	Neuromodulation for Brain Disorders: Challenges and Opportunities. IEEE Transactions on Biomedical Engineering, 2013, 60, 610-624.	2.5	148
28	Investigating Cooperative Behavior in Ecological Settings: An EEG Hyperscanning Study. PLoS ONE, 2016, 11, e0154236.	1.1	140
29	Brain–Computer Interface. , 2005, , 85-121.		137
30	Estimation of Time-Varying Connectivity Patterns Through the Use of an Adaptive Directed Transfer Function. IEEE Transactions on Biomedical Engineering, 2008, 55, 2557-2564.	2.5	130
31	Neocortical seizure foci localization by means of a directed transfer function method. Epilepsia, 2010, 51, 564-572.	2.6	130
32	Estimating cortical potentials from scalp EEGs in a realistically shaped inhomogeneous head model by means of the boundary element method. IEEE Transactions on Biomedical Engineering, 1999, 46, 1264-1268.	2.5	120
33	Multimodal Functional Neuroimaging: Integrating Functional MRI and EEG/MEG. IEEE Reviews in Biomedical Engineering, 2008, 1, 23-40.	13.1	120
34	Effect of EEG electrode number on epileptic source localization in pediatric patients. Clinical Neurophysiology, 2015, 126, 472-480.	0.7	119
35	Brain-Computer Interface Control in a Virtual Reality Environment and Applications for the Internet of Things. IEEE Access, 2018, 6, 10840-10849.	2.6	119
36	Relationship between speed and EEG activity during imagined and executed hand movements. Journal of Neural Engineering, 2010, 7, 026001.	1.8	117

#	ARTICLE	IF	CITATIONS
37	Classification of motor imagery tasks for brain-computer interface applications by means of two equivalent dipoles analysis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 166-171.	2.7	114
38	Estimation of in vivo brain-to-skull conductivity ratio in humans. Applied Physics Letters, 2006, 89, 223903.	1.5	114
39	Noninvasive imaging of cardiac transmembrane potentials within three-dimensional myocardium by means of a realistic geometry anisotropic heart model. IEEE Transactions on Biomedical Engineering, 2003, 50, 1190-1202.	2.5	112
40	Sparse source imaging in electroencephalography with accurate field modeling. Human Brain Mapping, 2008, 29, 1053-1067.	1.9	112
41	Cortical Imaging of Event-Related (de)Synchronization During Online Control of Brain-Computer Interface Using Minimum-Norm Estimates in Frequency Domain. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 425-431.	2.7	105
42	Intrinsic functional neuron-type selectivity of transcranial focused ultrasound neuromodulation. Nature Communications, 2021, 12, 2519.	5.8	102
43	Boundary Element Method-Based Cortical Potential Imaging of Somatosensory Evoked Potentials Using Subjects' Magnetic Resonance Images. NeuroImage, 2002, 16, 564-576.	2.1	97
44	Imaging Electrical Impedance From Acoustic Measurements by Means of Magnetoacoustic Tomography With Magnetic Induction (MAT-MI). IEEE Transactions on Biomedical Engineering, 2007, 54, 323-330.	2.5	95
45	Estimation of the effective and functional human cortical connectivity with structural equation modeling and directed transfer function applied to high-resolution EEG. Magnetic Resonance Imaging, 2004, 22, 1457-1470.	1.0	92
46	fMRIâ€"EEG integrated cortical source imaging by use of time-variant spatial constraints. NeuroImage, 2008, 39, 1198-1214.	2.1	91
47	High-Definition Transcranial Direct Current Stimulation Induces Both Acute and Persistent Changes in Broadband Cortical Synchronization: A Simultaneous tDCSâ€"EEG Study. IEEE Transactions on Biomedical Engineering, 2014, 61, 1967-1978.	2.5	90
48	Localization of the site of origin of cardiac activation by means of a heart-model-based electrocardiographic imaging approach. IEEE Transactions on Biomedical Engineering, 2001, 48, 660-669.	2.5	89
49	Validation and Opportunities of Electrocardiographic Imaging: From Technical Achievements to Clinical Applications. Frontiers in Physiology, 2018, 9, 1305.	1.3	89
50	A new magnetic resonance electrical impedance tomography (MREIT) algorithm: the RSM-MREIT algorithm with applications to estimation of human head conductivity. Physics in Medicine and Biology, 2006, 51, 3067-3083.	1.6	87
51	Seizure source imaging by means of FINE spatio-temporal dipole localization and directed transfer function in partial epilepsy patients. Clinical Neurophysiology, 2012, 123, 1275-1283.	0.7	86
52	Dynamic imaging of ictal oscillations using non-invasive high-resolution EEG. NeuroImage, 2011, 56, 1908-1917.	2.1	83
53	High-resolution EEG: a new realistic geometry spline Laplacian estimation technique. Clinical Neurophysiology, 2001, 112, 845-852.	0.7	81
54	Noninvasive reconstruction of three-dimensional ventricular activation sequence from the inverse solution of distributed equivalent current density. IEEE Transactions on Medical Imaging, 2006, 25, 1307-1318.	5.4	81

#	Article	IF	Citations
55	Evaluation of cortical current density imaging methods using intracranial electrocorticograms and functional MRI. NeuroImage, 2007, 35, 598-608.	2.1	80
56	Gradient‐based electrical properties tomography (g<scp>EPT</scp>): A robust method for mapping electrical properties of biological tissues in vivo using magnetic resonance imaging. Magnetic Resonance in Medicine, 2015, 74, 634-646.	1.9	80
57	Imaging Electric Properties of Biological Tissues by RF Field Mapping in MRI. IEEE Transactions on Medical Imaging, 2010, 29, 474-481.	5.4	79
58	Linear and nonlinear relationships between visual stimuli, EEG and BOLD fMRI signals. NeuroImage, 2010, 50, 1054-1066.	2.1	79
59	A computer simulation study of cortical imaging from scalp potentials. IEEE Transactions on Biomedical Engineering, 1998, 45, 724-735.	2.5	78
60	Brain‐Computer Interfaces. , 2013, , 87-151.		78
61	Identification of epileptogenic foci from causal analysis of ECoG interictal spike activity. Clinical Neurophysiology, 2009, 120, 1449-1456.	0.7	75
62	Magnetic-Resonance-Based Electrical Properties Tomography: A Review. IEEE Reviews in Biomedical Engineering, 2014, 7, 87-96.	13.1	75
63	A Self-Coherence Enhancement Algorithm and its Application to Enhancing Three-Dimensional Source Estimation from EEGs. Annals of Biomedical Engineering, 2001, 29, 1019-1027.	1.3	73
64	A cortical potential imaging study from simultaneous extra- and intracranial electrical recordings by means of the finite element method. NeuroImage, 2006, 31, 1513-1524.	2.1	73
65	Classification of motor imagery by means of cortical current density estimation and Von Neumann entropy. Journal of Neural Engineering, 2007, 4, 17-25.	1.8	72
66	An alternative subspace approach to EEG dipole source localization. Physics in Medicine and Biology, 2004, 49, 327-343.	1.6	69
67	Noninvasive three-dimensional electrocardiographic imaging of ventricular activation sequence. American Journal of Physiology - Heart and Circulatory Physiology, 2005, 289, H2724-H2732.	1.5	68
68	Interictal spike analysis of high-density EEG in patients with partial epilepsy. Clinical Neurophysiology, 2011, 122, 1098-1105.	0.7	68
69	Characterization of functional brain activity and connectivity using EEG and fMRI in patients with sickle cell disease. NeuroImage: Clinical, 2017, 14, 1-17.	1.4	68
70	Imaging and visualization of 3-D cardiac electric activity. IEEE Transactions on Information Technology in Biomedicine, 2001, 5, 181-186.	3.6	66
71	Combined rTMS and virtual reality brain‐computer interface training for motor recovery after stroke. Journal of Neural Engineering, 2018, 15, 016009.	1.8	66
72	Complex B₁ mapping and electrical properties imaging of the human brain using a 16‐channel transceiver coil at 7T. Magnetic Resonance in Medicine, 2013, 69, 1285-1296.	1.9	65

#	ARTICLE	IF	CITATIONS
73	Seizure prediction in patients with focal hippocampal epilepsy. Clinical Neurophysiology, 2017, 128, 1299-1307.	0.7	65
74	Estimation of the Cortical Connectivity by High-Resolution EEG and Structural Equation Modeling: Simulations and Application to Finger Tapping Data. IEEE Transactions on Biomedical Engineering, 2005, 52, 757-768.	2.5	64
75	Three-dimensional brain current source reconstruction from intra-cranial ECoG recordings. NeuroImage, 2008, 42, 683-695.	2.1	64
76	Imaging brain source extent from EEG/MEG by means of an iteratively reweighted edge sparsity minimization (IRES) strategy. NeuroImage, 2016, 142, 27-42.	2.1	64
77	Grand Challenges in Mapping the Human Brain: NSF Workshop Report. IEEE Transactions on Biomedical Engineering, 2013, 60, 2983-2992.	2.5	62
78	Noninvasive electromagnetic source imaging of spatiotemporally distributed epileptogenic brain sources. Nature Communications, 2020, 11, 1946.	5.8	61
79	An enhanced time-frequency-spatial approach for motor imagery classification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 250-254.	2.7	60
80	From Complex <formula formulatype="inline"><tex Notation="TeX">${m B}_{1}$</tex></formula> Mapping to Local SAR Estimation for Human Brain MR Imaging Using Multi-Channel Transceiver Coil at 7T. IEEE Transactions on Medical Imaging, 2013, 32, 1058-1067.	5.4	60
81	Localization of Origins of Premature Ventricular Contraction by Means of Convolutional Neural Network From 12-Lead ECG. IEEE Transactions on Biomedical Engineering, 2018, 65, 1662-1671.	2.5	60
82	Electrophysiological Source Imaging of Brain Networks Perturbed by Low-Intensity Transcranial Focused Ultrasound. IEEE Transactions on Biomedical Engineering, 2016, 63, 1787-1794.	2.5	58
83	Noninvasive three-dimensional activation time imaging of ventricular excitation by means of a heart-excitation model. Physics in Medicine and Biology, 2002, 47, 4063-4078.	1.6	57
84	Electrical Properties Tomography Based on $B_{{1}}$ Maps in MRI: Principles, Applications, and Challenges. IEEE Transactions on Biomedical Engineering, 2017, 64, 2515-2530.	2.5	57
85	EEG source localization. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2019, 160, 85-101.	1.0	56
86	Quantifying and Characterizing Tonic Thermal Pain Across Subjects From EEG Data Using Random Forest Models. IEEE Transactions on Biomedical Engineering, 2017, 64, 2988-2996.	2.5	55
87	High-Resolution Spatio-Temporal Functional Neuroimaging of Brain Activity. Critical Reviews in Biomedical Engineering, 2002, 30, 283-306.	0.5	55
88	An equivalent current source model and Laplacian weighted minimum norm current estimates of brain electrical activity. IEEE Transactions on Biomedical Engineering, 2002, 49, 277-288.	2.5	54
89	Brainâ€"Computer Interfaces. , 2020, , 131-183.		53
90	Magnetoacoustic imaging of human liver tumor with magnetic induction. Applied Physics Letters, 2011, 98, 23703.	1.5	52

#	Article	IF	Citations
91	The influence of corticospinal activity on TMS-evoked activity and connectivity in healthy subjects: A TMS-EEG study. PLoS ONE, 2017, 12, e0174879.	1.1	52
92	Estimation of electrical conductivity distribution within the human head from magnetic flux density measurement. Physics in Medicine and Biology, 2005, 50, 2675-2687.	1.6	51
93	Source Connectivity Analysis from MEG and its Application to Epilepsy Source Localization. Brain Topography, 2012, 25, 157-166.	0.8	50
94	A bioelectric inverse imaging technique based on surface Laplacians. IEEE Transactions on Biomedical Engineering, 1997, 44, 529-538.	2.5	49
95	Spectral and spatial changes of brain rhythmic activity in response to the sustained thermal pain stimulation. Human Brain Mapping, 2016, 37, 2976-2991.	1.9	49
96	Spatial resolution of EEG cortical source imaging revealed by localization of retinotopic organization in human primary visual cortex. Journal of Neuroscience Methods, 2007, 161, 142-154.	1.3	48
97	An efficient rhythmic component expression and weighting synthesis strategy for classifying motor imagery EEG in a brain–computer interface. Journal of Neural Engineering, 2004, 1, 1-7.	1.8	47
98	A novel channel selection method for optimal classification in different motor imagery BCI paradigms. BioMedical Engineering OnLine, 2015, 14, 93.	1.3	46
99	On the neuromodulatory pathways of the in vivo brain by means of transcranial focused ultrasound. Current Opinion in Biomedical Engineering, 2018, 8, 61-69.	1.8	45
100	Differential Electrophysiological Coupling for Positive and Negative BOLD Responses during Unilateral Hand Movements. Journal of Neuroscience, 2011, 31, 9585-9593.	1.7	44
101	Determining electrical properties based on B_1 fields measured in an MR scanner using a multi-channel transmit/receive coil: a general approach. Physics in Medicine and Biology, 2013, 58, 4395-4408.	1.6	44
102	Noninvasive Three-Dimensional Cardiac Activation Imaging From Body Surface Potential Maps: A Computational and Experimental Study on a Rabbit Model. IEEE Transactions on Medical Imaging, 2008, 27, 1622-1630.	5.4	43
103	Influence of white matter anisotropic conductivity on EEG source localization: Comparison to fMRI in human primary visual cortex. Clinical Neurophysiology, 2009, 120, 2071-2081.	0.7	43
104	Noninvasive Electromagnetic Source Imaging and Granger Causality Analysis: An Electrophysiological Connectome (eConnectome) Approach. IEEE Transactions on Biomedical Engineering, 2016, 63, 2474-2487.	2.5	43
105	Grand Challenges in Interfacing Engineering With Life Sciences and Medicine. IEEE Transactions on Biomedical Engineering, 2013, 60, 589-598.	2.5	42
106	High-resolution EEG: on the cortical equivalent dipole layer imaging. Clinical Neurophysiology, 2002, 113, 227-235.	0.7	41
107	Noninvasive imaging of three-dimensional cardiac activation sequence during pacing and ventricular tachycardia. Heart Rhythm, 2011, 8, 1266-1272.	0.3	41
108	Magnetoacoustic Tomography With Magnetic Induction: Bioimepedance Reconstruction Through Vector Source Imaging. IEEE Transactions on Medical Imaging, 2013, 32, 619-627.	5.4	41

#	Article	IF	Citations
109	Three-Dimensional Brainâ€"Computer Interface Control Through Simultaneous Overt Spatial Attentional and Motor Imagery Tasks. IEEE Transactions on Biomedical Engineering, 2018, 65, 2417-2427.	2.5	41
110	Body surface Laplacian mapping of cardiac electrical activity. American Journal of Cardiology, 1992, 70, 1617-1620.	0.7	40
111	The impact of mind-body awareness training on the early learning of a brain-computer interface. Technology, 2014, 02, 254-260.	1.4	40
112	Exploring Training Effect in 42 Human Subjects Using a Non-invasive Sensorimotor Rhythm Based Online BCI. Frontiers in Human Neuroscience, 2019, 13, 128.	1.0	40
113	EEG Source Imaging: Correlating Source Locations and Extents With Electrocorticography and Surgical Resections in Epilepsy Patients. Journal of Clinical Neurophysiology, 2007, 24, 130-136.	0.9	39
114	Noninvasive Imaging of the High Frequency Brain Activity in Focal Epilepsy Patients. IEEE Transactions on Biomedical Engineering, 2014, 61, 1660-1667.	2.5	39
115	Thalamocortical relationship in epileptic patients with generalized spike and wave discharges â€" A multimodal neuroimaging study. NeuroImage: Clinical, 2015, 9, 117-127.	1.4	39
116	Motor imagery task classification for brain computer interface applications using spatiotemporal principle component analysis. Neurological Research, 2004, 26, 282-287.	0.6	38
117	Goal selection versus process control in a brainâ€"computer interface based on sensorimotor rhythms. Journal of Neural Engineering, 2009, 6, 016005.	1.8	38
118	Noninvasive reconstruction of the three-dimensional ventricular activation sequence during pacing and ventricular tachycardia in the canine heart. American Journal of Physiology - Heart and Circulatory Physiology, 2012, 302, H244-H252.	1.5	38
119	Training in the practice of noninvasive brain stimulation: Recommendations from an IFCN committee. Clinical Neurophysiology, 2021, 132, 819-837.	0.7	38
120	Brain electric source imaging: scalp Laplacian mapping and cortical imaging. Critical Reviews in Biomedical Engineering, 1999, 27, 149-88.	0.5	37
121	Magnetoacoustic tomography with magnetic induction for highâ€resolution bioimepedance imaging through vector source reconstruction under the static field of MRI magnet. Medical Physics, 2014, 41, 022902.	1.6	36
122	Noninvasive high-frequency oscillations riding spikes delineates epileptogenic sources. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	35
123	Mapping the bilateral visual integration by EEG and fMRI. NeuroImage, 2009, 46, 989-997.	2.1	33
124	Spectral and spatial shifts of post-ictal slow waves in temporal lobe seizures. Brain, 2012, 135, 3134-3143.	3.7	33
125	Neuromodulation Management of Chronic Neuropathic Pain in the Central Nervous System. Advanced Functional Materials, 2020, 30, 1908999.	7.8	33
126	Mindfulness Improves Brainâ€"Computer Interface Performance by Increasing Control Over Neural Activity in the Alpha Band. Cerebral Cortex, 2021, 31, 426-438.	1.6	33

#	Article	IF	Citations
127	Anodal Transcranial Direct Current Stimulation Increases Bilateral Directed Brain Connectivity during Motor-Imagery Based Brain-Computer Interface Control. Frontiers in Neuroscience, 2017, 11, 691.	1.4	31
128	Systems Neuroengineering: Understanding and Interacting with the Brain. Engineering, 2015, 1, 292-308.	3.2	30
129	Lateralization and localization of epilepsy related hemodynamic foci using presurgical fMRI. Clinical Neurophysiology, 2015, 126, 27-38.	0.7	30
130	Transcranial focused ultrasound induces sustained synaptic plasticity in rat hippocampus. Brain Stimulation, 2022, 15, 352-359.	0.7	30
131	Spatio-temporal EEG source localization using a three-dimensional subspace FINE approach in a realistic geometry inhomogeneous head model. IEEE Transactions on Biomedical Engineering, 2006, 53, 1732-1739.	2.5	29
132	Magneto acoustic tomography with short pulsed magnetic field for in-vivo imaging of magnetic iron oxide nanoparticles. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 689-699.	1.7	29
133	Equivalent dipole estimation of spontaneous EEG alpha activity: two-moving dipole approach. Medical and Biological Engineering and Computing, 1992, 30, 324-332.	1.6	28
134	Comparison of RF body coils for MRI at 3â€‰â€‰T: a simulation study using parallel transmission on various anatomical targets. NMR in Biomedicine, 2015, 28, 1332-1344.	1.6	28
135	Exploring Cognitive Flexibility With a Noninvasive BCI Using Simultaneous Steady-State Visual Evoked Potentials and Sensorimotor Rhythms. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 936-947.	2.7	28
136	Transcranial Focused Ultrasound Neuromodulation of Voluntary Movement-Related Cortical Activity in Humans. IEEE Transactions on Biomedical Engineering, 2021, 68, 1923-1931.	2.5	28
137	Benefits of deep learning classification of continuous noninvasive brainâ€"computer interface control. Journal of Neural Engineering, 2021, 18, 046082.	1.8	28
138	Estimation of Global Ventricular Activation Sequences by Noninvasive Threeâ€Dimensional Electrical Imaging: Validation Studies in a Swine Model During Pacing. Journal of Cardiovascular Electrophysiology, 2008, 19, 535-540.	0.8	27
139	Dynamic imaging of seizure activity in pediatric epilepsy patients. Clinical Neurophysiology, 2012, 123, 2122-2129.	0.7	27
140	Effects of Soft Drinks on Resting State EEG and Brainâ€"Computer Interface Performance. IEEE Access, 2017, 5, 18756-18764.	2.6	27
141	Frequency of alpha oscillation predicts individual differences in perceptual stability during binocular rivalry. Human Brain Mapping, 2019, 40, 2422-2433.	1.9	27
142	Functional cortical source imaging from simultaneously recorded ERP and fMRI. Journal of Neuroscience Methods, 2006, 157, 118-123.	1.3	26
143	Neurons that detect interocular conflict during binocular rivalry revealed with EEG. Journal of Vision, 2016, 16, 18.	0.1	25
144	Sensorimotor Rhythm BCI with Simultaneous High Definition-Transcranial Direct Current Stimulation Alters Task Performance. Brain Stimulation, 2016, 9, 834-841.	0.7	25

#	Article	IF	Citations
145	EEG-fMRI reciprocal functional neuroimaging. Clinical Neurophysiology, 2010, 121, 1240-1250.	0.7	24
146	A Study of the Effects of Electrode Number and Decoding Algorithm on Online EEG-Based BCI Behavioral Performance. Frontiers in Neuroscience, 2018, 12, 227.	1.4	24
147	Noninvasive cardiac activation imaging of ventricular arrhythmias during drug-induced QT prolongation in the rabbit heart. Heart Rhythm, 2013, 10, 1509-1515.	0.3	23
148	Electromagnetic source imaging using simultaneous scalp EEG and intracranial EEG: An emerging tool for interacting with pathological brain networks. Clinical Neurophysiology, 2018, 129, 168-187.	0.7	23
149	Multiple Oscillatory Push–Pull Antagonisms Constrain Seizure Propagation. Annals of Neurology, 2019, 86, 683-694.	2.8	23
150	Graph theory analysis reveals how sickle cell disease impacts neural networks of patients with more severe disease. NeuroImage: Clinical, 2019, 21, 101599.	1.4	23
151	Transcranial Focused Ultrasound Enhances Sensory Discrimination Capability through Somatosensory Cortical Excitation. Ultrasound in Medicine and Biology, 2021, 47, 1356-1366.	0.7	23
152	Electrophysiological Neuroimaging. , 2005, , 221-261.		22
153	Noninvasive cortical imaging of epileptiform activities from interictal spikes in pediatric patients. NeuroImage, 2011, 54, 244-252.	2.1	22
154	In vivo imaging of electrical properties of an animal tumor model with an 8-channel transceiver array at 7‰T using electrical properties tomography. Magnetic Resonance in Medicine, 2017, 78, 2157-2169.	1.9	22
155	Interictal SEEG Resting–State Connectivity Localizes the Seizure Onset Zone and Predicts Seizure Outcome. Advanced Science, 2022, 9, e2200887.	5.6	22
156	Deactivation in the posterior mid-cingulate cortex reflects perceptual transitions during binocular rivalry: Evidence from simultaneous EEG-fMRI. NeuroImage, 2017, 152, 1-11.	2.1	21
157	Conflict-sensitive neurons gate interocular suppression in human visual cortex. Scientific Reports, 2018, 8, 1239.	1.6	21
158	Continuous sensorimotor rhythm based brain computer interface learning in a large population. Scientific Data, 2021, 8, 98.	2.4	21
159	3D source localization of interictal spikes in epilepsy patients with MRI lesions. Physics in Medicine and Biology, 2006, 51, 4047-4062.	1.6	20
160	Temporal Sparse Promoting Three Dimensional Imaging of Cardiac Activation. IEEE Transactions on Medical Imaging, 2015, 34, 2309-2319.	5.4	20
161	A minimal product method and its application to cortical imaging. , 2001, 13, 209-217.		19
162	Goal selection versus process control while learning to use a brain–computer interface. Journal of Neural Engineering, 2011, 8, 036012.	1.8	19

#	Article	IF	Citations
163	Quantitative prediction of radio frequency induced local heating derived from measured magnetic field maps in magnetic resonance imaging: A phantom validation at 7‰T. Applied Physics Letters, 2014, 105, 244101.	1.5	19
164	Brain–Heart Interactions Underlying Traditional Tibetan Buddhist Meditation. Cerebral Cortex, 2020, 30, 439-450.	1.6	19
165	Noninvasive Mapping of Transmural Potentials During Activation in Swine Hearts From Body Surface Electrocardiograms. IEEE Transactions on Medical Imaging, 2012, 31, 1777-1785.	5.4	18
166	Increased theta band EEG power in sickle cell disease patients. Journal of Pain Research, 2018, Volume 11, 67-76.	0.8	18
167	Exploring the extent of source imaging: Recent advances in noninvasive electromagnetic brain imaging. Current Opinion in Biomedical Engineering, 2021, 18, 100277.	1.8	18
168	Equivalent Moving Dipole Localization of Cardiac Ectopic Activity in a Swine Model During Pacing. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 1318-1326.	3.6	17
169	SSVEP signatures of binocular rivalry during simultaneous EEG and fMRI. Journal of Neuroscience Methods, 2015, 243, 53-62.	1.3	17
170	Noninvasive Imaging of High-Frequency Drivers and Reconstruction of Global Dominant Frequency Maps in Patients With Paroxysmal and Persistent Atrial Fibrillation. IEEE Transactions on Biomedical Engineering, 2016, 63, 1333-1340.	2.5	17
171	Effect of Electroconvulsive Therapy on Medial Prefrontal γ-Aminobutyric Acid Among Schizophrenia Patients. Journal of ECT, 2018, 34, 227-232.	0.3	17
172	Contribution of Ictal Source Imaging for Localizing Seizure Onset Zone in Patients With Focal Epilepsy. Neurology, 2021, 96, e366-e375.	1.5	17
173	EEG Mapping and Source Imaging. , 2017, , .		17
174	Body Surface Laplacian Mapping in Patients with Left or Right Ventricular Bundle Branch Block. PACE - Pacing and Clinical Electrophysiology, 1998, 21, 2043-2054.	0.5	16
175	Focused Ultrasound Help Realize High Spatiotemporal Brain Imaging? - A Concept on Acousto-Electrophysiological Neuroimaging. IEEE Transactions on Biomedical Engineering, 2016, 63, 2654-2656.	2.5	16
176	An Adaptive Directed Transfer Function Approach for Detecting Dynamic Causal Interactions. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4949-52.	0.5	15
177	Three-Dimensional Cardiac Electrical Imaging From Intracavity Recordings. IEEE Transactions on Biomedical Engineering, 2007, 54, 1454-1460.	2.5	15
178	Electrophysiological Mapping and Neuroimaging. , 2013, , 499-543.		15
179	Sparse cortical current density imaging in motor potentials induced by finger movement. Journal of Neural Engineering, 2011, 8, 036008.	1.8	14
180	Imaging cardiac activation sequence during ventricular tachycardia in a canine model of nonischemic heart failure. American Journal of Physiology - Heart and Circulatory Physiology, 2015, 308, H108-H114.	1.5	13

#	ARTICLE	IF	CITATIONS
181	Mapping electrical properties heterogeneity of tumor using boundary informed electrical properties tomography (BIEPT) at 7T. Magnetic Resonance in Medicine, 2019, 81, 393-409.	1.9	13
182	Therapeutic Ultrasound Triggered Silk Fibroin Scaffold Degradation. Advanced Healthcare Materials, 2021, 10, 2100048.	3.9	13
183	Noninvasive control of a robotic arm in multiple dimensions using scalp electroencephalogram. , 2013, , .		12
184	Simultaneous Quantitative Imaging of Electrical Properties and Proton Density From B_{1} Maps Using MRI. IEEE Transactions on Medical Imaging, 2016, 35, 2064-2073.	5.4	12
185	Three-Dimensional Noninvasive Imaging of Ventricular Arrhythmias in Patients With Premature Ventricular Contractions. IEEE Transactions on Biomedical Engineering, 2018, 65, 1495-1503.	2.5	12
186	Electromagnetic Brain Source Imaging by Means of a Robust Minimum Variance Beamformer. IEEE Transactions on Biomedical Engineering, 2018, 65, 2365-2374.	2.5	12
187	Spatial-temporal aspects of continuous EEG-based neurorobotic control. Journal of Neural Engineering, 2020, 17, 066006.	1.8	11
188	High-resolution Functional Source and Impedance Imaging. , 2005, 2005, 4178-82.		10
189	Assessing Dynamic Spectral Causality by Lagged Adaptive Directed Transfer Function and Instantaneous Effect Factor. IEEE Transactions on Biomedical Engineering, 2014, 61, 1979-1988.	2.5	10
190	Noninvasive Imaging of 3-Dimensional Myocardial Infarction From the Inverse Solution of Equivalent Current Density in Pathological Hearts. IEEE Transactions on Biomedical Engineering, 2015, 62, 468-476.	2.5	10
191	Noninvasive Imaging of Human Atrial Activation during Atrial Flutter and Normal Rhythm from Body Surface Potential Maps. PLoS ONE, 2016, 11, e0163445.	1.1	10
192	EEG electrode digitization with commercial virtual reality hardware. PLoS ONE, 2018, 13, e0207516.	1.1	10
193	CONtrast Conformed Electrical Properties Tomography (CONCEPT) Based on Multi- Channel Transmission and Alternating Direction Method of Multipliers. IEEE Transactions on Medical Imaging, 2019, 38, 349-359.	5.4	10
194	On the algorithm for computing body surface Laplacians in an inhomogeneous volume conductor of arbitrary shape. IEEE Transactions on Biomedical Engineering, 1998, 45, 131-133.	2.5	9
195	Decoding and mapping of right hand motor imagery tasks using EEG source imaging. , 2015, , .		9
196	Effects of Long-Term Meditation Practices on Sensorimotor Rhythm-Based Brain-Computer Interface Learning. Frontiers in Neuroscience, 2020, 14, 584971.	1.4	9
197	Frontolimbic alpha activity tracks intentional rest BCI control improvement through mindfulness meditation. Scientific Reports, 2021, 11, 6818.	1.6	9
198	EEG source analysis of motor potentials induced by fast repetitive unilateral finger movement. , 0, , .		8

#	Article	IF	Citations
199	Hand movement decoding by phase-locking low frequency EEG signals. , 2011, 2011, 6335-8.		8
200	Noninvasive Activation Imaging of Ventricular Arrhythmias by Spatial Gradient Sparse in Frequency Domainâ€"Application to Mapping Reentrant Ventricular Tachycardia. IEEE Transactions on Medical Imaging, 2019, 38, 525-539.	5.4	8
201	Automated gradient-based electrical properties tomography in the human brain using 7â€‰Tesla MRI. Magnetic Resonance Imaging, 2019, 63, 258-266.	1.0	7
202	A comparison of volume conductor effects on body surface Laplacian and potential ECGs: A model study. Computers in Biology and Medicine, 1997, 27, 117-127.	3.9	6
203	A New Algorithm for Estimating Scalp Laplacian EEG and Its Application to Visual-Evoked Potentials. Electromagnetics, 2001, 21, 633-640.	0.3	6
204	Imaging epileptogenic brain using high density EEG source imaging and MRI. Clinical Neurophysiology, 2016, 127, 5-7.	0.7	6
205	Imaging the extent and location of spatiotemporally distributed epileptiform sources from MEG measurements. NeuroImage: Clinical, 2022, 33, 102903.	1.4	6
206	Investigation of Displacement of Intracranial Electrode Induced by Focused Ultrasound Stimulation. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	6
207	Epicardial inverse solutions from body surface Laplacian maps: a model study. , 0, , .		5
208	Classification of Motor Imagery Tasks by means of Time-Frequency-Spatial Analysis for Brain-Computer Interface Applications. , 0, , .		5
209	Three-Dimensional Imaging of Complex Neural Activation in Humans From EEG. IEEE Transactions on Biomedical Engineering, 2009, 56, 1980-1988.	2.5	5
210	Stimulus rivalry and binocular rivalry share a common neural substrate. Journal of Vision, 2018, 18, 18.	0.1	5
211	Electrophysiological Mapping and Source Imaging. , 2020, , 379-413.		5
212	Progressive increase of high-frequency EEG oscillations during meditation is associated with its trait effects on heart rate and proteomics: a study on the Tibetan Buddhist. Cerebral Cortex, 2022, 32, 3865-3877.	1.6	5
213	A simulation study of body surface Laplacian maps in a 3D realistically shaped inhomogeneous heart-torso model. , 0, , .		4
214	Electrocardiographic tomographic imaging. , 0, , .		4
215	EEG-based motor imagery classification accuracy improves with gradually increased channel number. , 2012, 2012, 1695-8.		4
216	High-Frequency Hubs of the Ictal Cross-Frequency Coupling Network Predict Surgical Outcome in Epilepsy Patients. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2021, 29, 1290-1299.	2.7	4

#	ARTICLE	IF	CITATIONS
217	From the Guest Editor, Bioelectricity of Living Tissue. IEEE Engineering in Medicine and Biology Magazine, 1998, 17, 72-117.	1.1	3
218	Comments on "Is accurate recording of the ECG surface Laplacian feasible?" [with reply]. IEEE Transactions on Biomedical Engineering, 2001, 48, 610-613.	2.5	3
219	Simulation and Experiment Study of Magnetoacoustic Tomography with Magnetic Induction (MAT-MI) for Bioimpedance Imaging. , 0, , .		3
220	Recurrence based deterministic trends in EEG records of epilepsy patients. , 2008, , .		3
221	MEG-based brain functional connectivity analysis using eConnectome. , 2011, , .		3
222	Three-Dimensional Imaging of Ventricular Activation and Electrograms From Intracavitary Recordings. IEEE Transactions on Biomedical Engineering, 2011, 58, 868-875.	2.5	3
223	Exploring Functional and Causal Connectivity in the Brain. , 2013, , 545-564.		3
224	Estimating underlying neuronal activity from EEG using an iterative sparse technique. , 2015, 2015, 634-7.		3
225	Soft drink effects on sensorimotor rhythm brain computer interface performance and resting-state spectral power. , 2016, 2016, 1520-1523.		3
226	Body surface Laplacian mapping of ventricular depolarization from potential recordings in humans. , 0, , .		3
227	Body surface derivative electrocardiographic mapping. , 0, , .		2
228	Development of a X-window based bioelectric mapping software system. , 0, , .		2
229	Classification of imaginary tasks from three channels of EEG by using an artificial neural network. , 0, , .		2
230	On the forward problem of EEG cortical imaging by means of finite element method. , 0, , .		2
231	Imaging 3-dimensional Cardiac Electrical Activity from Intra-Cavity Potentials. , 2006, 2006, 4519.		2
232	Cortical Imaging of Sensorimotor Rhythm during On-line Control of Brain-computer Interface. , 2007, , .		2
233	Magnetoacoustic Tomography of Biological Tissue with Magnetic Induction. , 2007, , .		2
234	Cortical imaging of sensorimotor rhythms for BCI applications. , 2009, 2009, 4539-42.		2

#	ARTICLE	IF	CITATIONS
235	Decoding speed of imagined hand movement from EEG. , 2010, 2010, 142-5.		2
236	Activation recovery interval imaging of premature ventricular contraction. PLoS ONE, 2018, 13, e0196916.	1.1	2
237	Activation of Sympathetic Nervous System as a Biomarker for Deep Meditation. , 2019, , .		2
238	Body surface Laplacian maps for patients with left or right ventricular bundle branch block. , 0, , .		1
239	A new algorithm to compute body surface Laplacians in an inhomogeneous torso volume conductor with arbitrary shape. , 0, , .		1
240	Imaging brain electrical activity using a 3D realistically shaped inhomogeneous head model. , 0, , .		1
241	Localization of chronic myocardial infarction using body surface Laplacian maps. , 0, , .		1
242	Clinical application of body surface Laplacian mapping in diagnosis of myocardial infarction. , 0, , .		1
243	An alternative subspace approach to EEG 3-D dipole source localization. , 0, , .		1
244	Three-dimensional electrocardiographic imaging. , 2004, 2004, 5320.		1
245	Finite Element Modeling of Human Head from Medical Images. , 2007, , .		1
246	Adaptive Wiener filter formulation on the fMRI-EEG integrated spatiotemporal neuroimaging. , 2007, , .		1
247	Noninvasive Bioimpedance Imaging by Means of Current Reconstruction Magnetic Resonance Electrical Impedance Tomography. , 2007, , .		1
248	Comparison of Meshless FEM and Conventional FEM for Solving ECG Forward Problem: A Simulation Study. , 2007, , .		1
249	Functional neuroimaging of dynamic brain activation. , 2008, 2008, 3355.		1
250	Sustained thermal pain modulates spontaneous sensorimotor rhythms. , 2013, , .		1
251	EEG source imaging and connectivity analysis in epilepsy patients. , 2013, , .		1
252	A model study of body surface Laplacian maps for myocardial infarctions. , 0, , .		1

#	ARTICLE	IF	CITATIONS
253	Body surface Laplacian mapping of bioelectrical activity. Methods of Information in Medicine, 1997, 36, 326-8.	0.7	1
254	Mapping of cardiac electrical activity by means of a 3D heart-excitation-model. , 0, , .		0
255	Development of a Matlab-based brain mapping software system. , 0, , .		0
256	Imaging cardiac electrical activity from body surface electrocardiograms. , 0, , .		0
257	Correction to "A Bioelectric Inverse Imaging Technique Based On Surface Laplacians". IEEE Transactions on Biomedical Engineering, 1997, 44, 1163-1163.	2.5	0
258	Cortical source modeling and imaging. , 0, , .		0
259	Non-invasive imaging of cardiac electric activity. , 0, , .		0
260	A simulation study on spatial filters for cortical source imaging from EEG. , 0, , .		0
261	A simulation study of noninvasive electrocardiographic imaging. , 0, , .		0
262	Electrophysiological neuroimaging of brain activity. , 0, , .		0
263	Recent progress in electrophysiological neuroimaging. , 0, , .		0
264	Cortical imaging of epileptiform activity by means of a realistic geometry head model. , 0, , .		0
265	Enhancement of Performance of an EEG-based Brain-Computer Interface by means of a Time-Frequency Approach. , 0, , .		0
266	A Simulation Study of Two Dimensional Magnetoacoustic Tomography with Magnetic Induction. , 2007, , .		0
267	A Cortical Potential Imaging Analysis of Mu Rhythm during On-line Control of Brain-Computer Interface. , 2007, , .		0
268	A New Algorithm to Extract the Anisotropic Conductivity Distribution of White Matter from DT-MRI. , 2007, , .		0
269	Imaging Three-Dimensional Ventricular Activation Sequence under Dual-site Pacing in a Rabbit Model. , 2007, , .		0
270	Noise Analysis of Current Density Imaging: A Pilot Study. , 2007, , .		0

#	Article	IF	Citations
271	Electrophysiological Source Imaging of the Brain and Heart: Past, Present and Future. , 2007, , .		0
272	A new method to extract the conductivity tensor of brain inner tissues. , 2010, , .		0
273	Estimation of activation sequence from time course of equivalent current density in pathological hearts &#x2014; A simulation study. , 2011, , .		0
274	Magnetoacoustic tomography imaging of biological tissues with magnetic induction under the static field of MRI scanner. , 2014, , .		0
275	Celebrating 60th Anniversary of TBME [Special issue editorial]. IEEE Transactions on Biomedical Engineering, 2014, 61, 1363-1363.	2.5	0
276	Electroencephalography Electrode Configuration and Source Imaging1. Journal of Medical Devices, Transactions of the ASME, 2014, 8, .	0.4	0
277	An Entropy-Based Noninvasive Cardiac Imaging of Atrial Fibrillation1. Journal of Medical Devices, Transactions of the ASME, 2015, 9, .	0.4	0
278	Identifying epileptic source location and extent: An iterative sparse electromagnetic source imaging algorithm. , 2016, 2016, 109-112.		0
279	Identification of Source Signals by Estimating Directional Index of Phase Coupling in Multivariate Neural Systems. Journal of Medical and Biological Engineering, 2016, 36, 273-281.	1.0	0
280	Reply to â€œ10-10 electrode system for EEG recordingâ€. Clinical Neurophysiology, 2018, 129, 1104.	0.7	0
281	TBME: A Retrospective. IEEE Transactions on Biomedical Engineering, 2018, 65, 2673-2674.	2.5	0
282	Recognition of Biomarkers of Brain Connectivity and Pain Using Multi-Modal Imaging in Patients with Sickle Cell Disease. Blood, 2015, 126, 971-971.	0.6	0
283	Non-Invasive Multi-Modal Imaging to Evaluate Disease Severity in Sickle Cell Disease. Blood, 2016, 128, 1315-1315.	0.6	0
284	Exploring Functional and Causal Connectivity in the Brain. , 2020, , 415-432.		0
285	Evaluation of Cortical Imaging Techniques Based on Somatosensory Evoked Potentials. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
286	Cortical Potential Imaging of Movement-Related Potentials using Parametric Wiener Filter in Realistic-Shaped Head Model. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
287	Imaging 3-dimensional Cardiac Electrical Activity from Intra-Cavity Potentials. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
288	Three-Dimensional Ventricular Activation Imaging by Means of Equivalent Current Source Modeling and Estimation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0