

# Shenghong He

## List of Publications by Year in descending order

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111  
papers

3,834  
citations

117453

34  
h-index

138251

58  
g-index

115  
all docs

115  
docs citations

115  
times ranked

3787  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Hybrid BCI System Combining P300 and SSVEP and Its Application to Wheelchair Control. IEEE Transactions on Biomedical Engineering, 2013, 60, 3156-3166.	2.5	297
2	An EEG-Based BCI System for 2-D Cursor Control by Combining Mu/Beta Rhythm and P300 Potential. IEEE Transactions on Biomedical Engineering, 2010, 57, 2495-2505.	2.5	257
3	A self-training semi-supervised SVM algorithm and its application in an EEG-based brain computer interface speller system. Pattern Recognition Letters, 2008, 29, 1285-1294.	2.6	190
4	Three Recurrent Neural Networks and Three Numerical Methods for Solving a Repetitive Motion Planning Scheme of Redundant Robot Manipulators. IEEE/ASME Transactions on Mechatronics, 2017, 22, 1423-1434.	3.7	133
5	Discrimination Between Control and Idle States in Asynchronous SSVEP-Based Brain Switches: A Pseudo-Key-Based Approach. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2013, 21, 435-443.	2.7	125
6	Neural-Dynamic-Method-Based Dual-Arm CMG Scheme With Time-Varying Constraints Applied to Humanoid Robots. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 3251-3262.	7.2	121
7	Identification of psychiatric disorder subtypes from functional connectivity patterns in resting-state electroencephalography. Nature Biomedical Engineering, 2021, 5, 309-323.	11.6	100
8	Robust Adaptive Beamformers Based on Worst-Case Optimization and Constraints on Magnitude Response. IEEE Transactions on Signal Processing, 2009, 57, 2615-2628.	3.2	97
9	A Varying-Parameter Convergent-Differential Neural Network for Solving Joint-Angular-Drift Problems of Redundant Robot Manipulators. IEEE/ASME Transactions on Mechatronics, 2018, 23, 679-689.	3.7	96
10	Enhanced Motor Imagery Training Using a Hybrid BCI With Feedback. IEEE Transactions on Biomedical Engineering, 2015, 62, 1706-1717.	2.5	95
11	An asynchronous wheelchair control by hybrid EEG+EOG brain-computer interface. Cognitive Neurodynamics, 2014, 8, 399-409.	2.3	93
12	Prognosis for patients with cognitive motor dissociation identified by brain-computer interface. Brain, 2020, 143, 1177-1189.	3.7	92
13	Voxel Selection in fMRI Data Analysis Based on Sparse Representation. IEEE Transactions on Biomedical Engineering, 2009, 56, 2439-2451.	2.5	87
14	Motor Imagery Classification Based on Bilinear Sub-Manifold Learning of Symmetric Positive-Definite Matrices. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 504-516.	2.7	81
15	An EEG-Based Brain Computer Interface for Emotion Recognition and Its Application in Patients with Disorder of Consciousness. IEEE Transactions on Affective Computing, 2021, 12, 832-842.	5.7	80
16	A brain computer interface-based explorer. Journal of Neuroscience Methods, 2015, 244, 2-7.	1.3	79
17	Computer-aided diagnosis of laryngeal cancer via deep learning based on laryngoscopic images. EBioMedicine, 2019, 48, 92-99.	2.7	74
18	Surfing the internet with a BCI mouse. Journal of Neural Engineering, 2012, 9, 036012.	1.8	66

#	ARTICLE	IF	CITATIONS
19	An Extended EM Algorithm for Joint Feature Extraction and Classification in Brain-Computer Interfaces. <i>Neural Computation</i> , 2006, 18, 2730-2761.	1.3	64
20	Channel selection by Rayleigh coefficient maximization based genetic algorithm for classifying single-trial motor imagery EEG. <i>Neurocomputing</i> , 2013, 121, 423-433.	3.5	64
21	Decoding voluntary movements and postural tremor based on thalamic LFPs as a basis for closed-loop stimulation for essential tremor. <i>Brain Stimulation</i> , 2019, 12, 858-867.	0.7	61
22	Closed-Loop Deep Brain Stimulation for Essential Tremor Based on Thalamic Local Field Potentials. <i>Movement Disorders</i> , 2021, 36, 863-873.	2.2	52
23	Blind Estimation of Channel Parameters and Source Components for EEG Signals: A Sparse Factorization Approach. <i>IEEE Transactions on Neural Networks</i> , 2006, 17, 419-431.	4.8	51
24	Tricriteria Optimization-Coordination Motion of Dual-Redundant-Robot Manipulators for Complex Path Planning. <i>IEEE Transactions on Control Systems Technology</i> , 2018, 26, 1345-1357.	3.2	50
25	A Robust Adaptive Beamformer Based on Worst-Case Semi-Definite Programming. <i>IEEE Transactions on Signal Processing</i> , 2010, 58, 5914-5919.	3.2	48
26	An Online Semi-supervised Brain-Computer Interface. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 2614-2623.	2.5	47
27	A Single-Channel EOG-Based Speller. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 1978-1987.	2.7	47
28	An EEG-/EOG-Based Hybrid Brain-Computer Interface: Application on Controlling an Integrated Wheelchair Robotic Arm System. <i>Frontiers in Neuroscience</i> , 2019, 13, 1243.	1.4	47
29	A Hybrid Asynchronous Brain-Computer Interface Combining SSVEP and EOG Signals. <i>IEEE Transactions on Biomedical Engineering</i> , 2020, 67, 2881-2892.	2.5	43
30	Model-Based Human Gait Recognition Via Deterministic Learning. <i>Cognitive Computation</i> , 2014, 6, 218-229.	3.6	42
31	Emotion-Related Consciousness Detection in Patients With Disorders of Consciousness Through an EEG-Based BCI System. <i>Frontiers in Human Neuroscience</i> , 2018, 12, 198.	1.0	42
32	EEG- and EOG-Based Asynchronous Hybrid BCI: A System Integrating a Speller, a Web Browser, an E-Mail Client, and a File Explorer. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 519-530.	2.7	40
33	A comparison study of two P300 speller paradigms for brain-computer interface. <i>Cognitive Neurodynamics</i> , 2013, 7, 523-529.	2.3	38
34	Bayesian estimation of ERP components from multicondition and multichannel EEG. <i>NeuroImage</i> , 2014, 88, 319-339.	2.1	37
35	A Novel Three-Dimensional P300 Speller Based on Stereo Visual Stimuli. <i>IEEE Transactions on Human-Machine Systems</i> , 2018, 48, 392-399.	2.5	37
36	Neurofeedback-Linked Suppression of Cortical $\hat{\nu}^2$ Bursts Speeds Up Movement Initiation in Healthy Motor Control: A Double-Blind Sham-Controlled Study. <i>Journal of Neuroscience</i> , 2020, 40, 4021-4032.	1.7	34

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37	Distinct Interactions between Fronto-Parietal and Default Mode Networks in Impaired Consciousness. <i>Scientific Reports</i> , 2016, 6, 38866.	1.6	33
38	An Intention-Driven Semi-autonomous Intelligent Robotic System for Drinking. <i>Frontiers in Neurobotics</i> , 2017, 11, 48.	1.6	32
39	Detecting number processing and mental calculation in patients with disorders of consciousness using a hybrid brain-computer interface system. <i>BMC Neurology</i> , 2015, 15, 259.	0.8	31
40	Discriminative Analysis of Parkinson's Disease Based on Whole-Brain Functional Connectivity. <i>PLoS ONE</i> , 2015, 10, e0124153.	1.1	31
41	Bilinear Regularized Locality Preserving Learning on Riemannian Graph for Motor Imagery BCI. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2018, 26, 698-708.	2.7	30
42	Bayesian electromagnetic spatio-temporal imaging of extended sources with Markov Random Field and temporal basis expansion. <i>NeuroImage</i> , 2016, 139, 385-404.	2.1	29
43	An Electrooculogram-Based Interaction Method and Its Music-on-Demand Application in a Virtual Reality Environment. <i>IEEE Access</i> , 2019, 7, 22059-22070.	2.6	29
44	Alterations of brain activity and functional connectivity in transition from acute to chronic tinnitus. <i>Human Brain Mapping</i> , 2021, 42, 485-494.	1.9	29
45	A Sparse Representation-Based Algorithm for Pattern Localization in Brain Imaging Data Analysis. <i>PLoS ONE</i> , 2012, 7, e50332.	1.1	29
46	A Novel Audiovisual Brain-Computer Interface and Its Application in Awareness Detection. <i>Scientific Reports</i> , 2015, 5, 9962.	1.6	28
47	Crossmodal Integration Enhances Neural Representation of Task-Relevant Features in Audiovisual Face Perception. <i>Cerebral Cortex</i> , 2015, 25, 384-395.	1.6	27
48	Prediction of post-earthquake depressive and anxiety symptoms: a longitudinal resting-state fMRI study. <i>Scientific Reports</i> , 2014, 4, 6423.	1.6	26
49	A semi-supervised support vector machine approach for parameter setting in motor imagery-based brain computer interfaces. <i>Cognitive Neurodynamics</i> , 2010, 4, 207-216.	2.3	25
50	The Effects of Audiovisual Inputs on Solving the Cocktail Party Problem in the Human Brain: An fMRI Study. <i>Cerebral Cortex</i> , 2018, 28, 3623-3637.	1.6	25
51	Balance between competing spectral states in subthalamic nucleus is linked to motor impairment in Parkinson's disease. <i>Brain</i> , 2022, 145, 237-250.	3.7	25
52	A Hybrid Brain-Computer Interface-Based Mail Client. <i>Computational and Mathematical Methods in Medicine</i> , 2013, 2013, 1-9.	0.7	21
53	An Auditory BCI System for Assisting CRS-R Behavioral Assessment in Patients with Disorders of Consciousness. <i>Scientific Reports</i> , 2016, 6, 32917.	1.6	21
54	A gaze-independent audiovisual brain-computer Interface for detecting awareness of patients with disorders of consciousness. <i>BMC Neurology</i> , 2018, 18, 144.	0.8	21

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55	Investigating the use of a two-stage attention-aware convolutional neural network for the automated diagnosis of otitis media from tympanic membrane images: a prediction model development and validation study. <i>BMJ Open</i> , 2021, 11, e041139.	0.8	21
56	Visual Fixation Assessment in Patients with Disorders of Consciousness Based on Brain-Computer Interface. <i>Neuroscience Bulletin</i> , 2018, 34, 679-690.	1.5	18
57	Subthalamic beta-targeted neurofeedback speeds up movement initiation but increases tremor in Parkinsonian patients. <i>ELife</i> , 2020, 9, .	2.8	17
58	Deep Unfolding With Weighted $\ell_1$ Minimization for Compressive Sensing. <i>IEEE Internet of Things Journal</i> , 2021, 8, 3027-3041.	5.5	14
59	Classification of symmetric positive definite matrices based on bilinear isometric Riemannian embedding. <i>Pattern Recognition</i> , 2019, 87, 94-105.	5.1	13
60	Exemplar-Based Recursive Instance Segmentation With Application to Plant Image Analysis. <i>IEEE Transactions on Image Processing</i> , 2020, 29, 389-404.	6.0	13
61	Automatic Epilepsy Detection Based on Wavelets Constructed From Data. <i>IEEE Access</i> , 2018, 6, 53133-53140.	2.6	12
62	Grouped sparse Bayesian learning for voxel selection in multivoxel pattern analysis of fMRI data. <i>NeuroImage</i> , 2019, 184, 417-430.	2.1	12
63	Entraining Stepping Movements of Parkinson's Patients to Alternating Subthalamic Nucleus Deep Brain Stimulation. <i>Journal of Neuroscience</i> , 2020, 40, 8964-8972.	1.7	12
64	Two Conditions for Equivalence of 0-Norm Solution and 1-Norm Solution in Sparse Representation. <i>IEEE Transactions on Neural Networks</i> , 2010, 21, 1189-1196.	4.8	11
65	Reproducibility and Discriminability of Brain Patterns of Semantic Categories Enhanced by Congruent Audiovisual Stimuli. <i>PLoS ONE</i> , 2011, 6, e20801.	1.1	11
66	An EEG-based brain-computer interface for automatic sleep stage classification. , 2018, , .		11
67	Gait-Phase Modulates Alpha and Beta Oscillations in the Pedunculopontine Nucleus. <i>Journal of Neuroscience</i> , 2021, 41, 8390-8402.	1.7	11
68	Selective Audiovisual Semantic Integration Enabled by Feature-Selective Attention. <i>Scientific Reports</i> , 2016, 6, 18914.	1.6	10
69	A new neural-dynamic control method of position and angular stabilization for autonomous quadrotor UAVs. , 2016, , .		10
70	An EEG-Based brain-computer interface for emotion recognition. , 2016, , .		10
71	Chronic disorders of consciousness. <i>Experimental and Therapeutic Medicine</i> , 2017, 14, 1277-1283.	0.8	10
72	Decoding hand movement velocities from EEG signals during a continuous drawing task. , 2010, , .		8

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73	A network model for blind source extraction in various ill-conditioned cases. <i>Neural Networks</i> , 2005, 18, 1348-1356.	3.3	7
74	EEG-based hybrid BCIs and their applications. , 2015, , .		7
75	Enjoy driving from thought in a virtual city. , 2017, , .		7
76	Goal-Directed Processing of Naturalistic Stimuli Modulates Large-Scale Functional Connectivity. <i>Frontiers in Neuroscience</i> , 2019, 12, 1003.	1.4	7
77	A novel multi-step reinforcement learning method for solving reward hacking. <i>Applied Intelligence</i> , 2019, 49, 2874-2888.	3.3	7
78	The modulatory effect of semantic familiarity on the audiovisual integration of face-€name pairs. <i>Human Brain Mapping</i> , 2016, 37, 4333-4348.	1.9	6
79	Beta Oscillation-Targeted Neurofeedback Training Based on Subthalamic LFPs in Parkinsonian Patients. , 2019, 2019, 81-84.		6
80	Dynamic User Activity and Data Detection for Grant-Free NOMA via Weighted $\hat{\alpha}_{2,1}$ Minimization. <i>IEEE Transactions on Wireless Communications</i> , 2022, 21, 1638-1651.	6.1	6
81	A hybrid BCI system for 2-D asynchronous cursor control. , 2010, 2010, 4205-8.		5
82	Neurofeedback Training With an Electroencephalogram-Based Brain-Computer Interface Enhances Emotion Regulation. <i>IEEE Transactions on Affective Computing</i> , 2023, 14, 998-1011.	5.7	5
83	Feature extraction with multiscale autoregression of multichannel time series for P300 speller BCI. , 2010, , .		4
84	Toward improved P300 speller performance in outdoor environment using polarizer. , 2016, , .		4
85	An Automatic Sleep Staging Model Combining Feature Learning and Sequence Learning. , 2020, , .		4
86	Single-Trial EEG Classification via Orthogonal Wavelet Decomposition-Based Feature Extraction. <i>Frontiers in Neuroscience</i> , 2021, 15, 715855.	1.4	4
87	Compressive Sensing-Based Power Allocation Optimization for Energy Harvesting IoT Nodes. <i>IEEE Transactions on Wireless Communications</i> , 2022, 21, 4535-4548.	6.1	4
88	A Template-Matching Method for Optical Power Monitoring. <i>IEEE Photonics Technology Letters</i> , 2011, 23, 1388-1390.	1.3	3
89	Weighted Regularized Sparse Recovery Method for Optical Power Monitoring. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 55-57.	1.3	3
90	Sparse representation based hyperspectral imagery classification via expanded dictionary. , 2012, , .		2

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91	Long-tail distribution based multiscale-multiband autoregressive detection for hyperspectral imagery. Multidimensional Systems and Signal Processing, 2013, 24, 65-85.	1.7	2
92	Explorer based on brain computer interface. , 2014, , .		2
93	Spatio-temporally regularized common spatial patterns (STR-CSP) for single-trial EEG classification. , 2014, , .		2
94	Enhance cross-subject MEG decoding by combining Riemannian Geometry feature extraction and multi-task learning. , 2019, , .		2
95	Assessing Meditation State Using EEG-based Permutation Entropy Features. , 2020, , .		2
96	A BCI-Based Study on the Relationship Between the SSVEP and Retinal Eccentricity in Overt and Covert Attention. Frontiers in Neuroscience, 2021, 15, 746146.	1.4	2
97	Sequentially updated least squares support vector machine with applications in online brain-computer interfaces. , 2011, , .		1
98	Robust Adaptive Microphone Array with Mainlobe and Response Ripple Control. Journal of Signal Processing Systems, 2011, 63, 301-313.	1.4	1
99	A sparse voxel selection approach for fMRI data analysis with multi-dimensional derivative constraints. , 2011, , .		1
100	Recoverability Analysis for Modified Compressive Sensing with Partially Known Support. PLoS ONE, 2014, 9, e87985.	1.1	1
101	A novel BCI based on 3D stereo stimuli and its application for clinical object recognition assessment. , 2017, , .		1
102	A BCI system for assisting visual fixation assessment in behavioral evaluation of patients with disorders of consciousness. , 2017, , .		1
103	Bayesian spatio-temporal decomposition for electromagnetic imaging of extended sources based on Destrieux atlas. , 2018, , .		1
104	Multiscale-Multivariate Autoregressive Detection for Hyperspectral Imagery. , 2010, , .		0
105	Elliptical symmetric distribution based maximal margin classification for hyperspectral imagery. , 2011, , .		0
106	Identifying activated brain regions from fMRI data based on blind non-negative component separation technique. , 2012, , .		0
107	Sufficient conditions for sparse recovery by weighted $\ell_1/\ell_2$ -constrained quadratic programming. , 2016, , .		0
108	An EEG-based mind controlled virtual-human obstacle-avoidance platform in three dimensional virtual environment. , 2017, , .		0

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109	Prediction of consciousness recovery in patients with disorder of consciousness using Brain-computer Interface. , 2017, , .		0
110	Multitask Learning for Common Spatial Patterns. , 2018, , .		0
111	Layer-wise Pre-training Mechanism Based on Neural Network for Epilepsy Detection. , 2020, , .		0