

Tomasz M Rutkowski

List of Publications by Year in descending order

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Version: 2024-02-01

107
papers

1,157
citations

759055

12
h-index

580701

25
g-index

121
all docs

121
docs citations

121
times ranked

1011
citing authors

#	ARTICLE	IF	CITATIONS
1	Noninvasive BCIs: Multiway Signal-Processing Array Decompositions. <i>Computer</i> , 2008, 41, 34-42.	1.2	116
2	Tactile and bone-conduction auditory brain computer interface for vision and hearing impaired users. <i>Journal of Neuroscience Methods</i> , 2015, 244, 45-51.	1.3	105
3	EMD APPROACH TO MULTICHANNEL EEG DATA – THE AMPLITUDE AND PHASE COMPONENTS CLUSTERING ANALYSIS. <i>Journal of Circuits, Systems and Computers</i> , 2010, 19, 215-229.	1.0	53
4	Blind Source Separation and Sparse Bump Modelling of Time Frequency Representation of Eeg Signals: New Tools for Early Detection of Alzheimer's Disease. , 0, , .		52
5	Artifact suppression from EEG signals using data adaptive time domain filtering. <i>Neurocomputing</i> , 2012, 97, 297-308.	3.5	46
6	Workshops of the Fifth International Brain-Computer Interface Meeting: Defining the Future. <i>Brain-Computer Interfaces</i> , 2014, 1, 27-49.	0.9	35
7	Estimation of speech embedded in a reverberant and noisy environment by independent component analysis and wavelets. <i>IEEE Transactions on Neural Networks</i> , 2002, 13, 888-893.	4.8	30
8	Multichannel EEG brain activity pattern analysis in time-frequency domain with nonnegative matrix factorization support. <i>International Congress Series</i> , 2007, 1301, 266-269.	0.2	29
9	Separation of EOG artifacts from EEG signals using bivariate EMD. , 2010, , .		27
10	Dynamical complexity of human responses: a multivariate data-adaptive framework. <i>Bulletin of the Polish Academy of Sciences: Technical Sciences</i> , 2012, 60, 433-445.	0.8	27
11	Collaborative Adaptive Learning using Hybrid Filters. , 2007, , .		26
12	Generalized optimal spatial filtering using a kernel approach with application to EEG classification. <i>Cognitive Neurodynamics</i> , 2010, 4, 355-358.	2.3	22
13	Ocular Artifacts Removal from EEG Using EMD. , 2008, , 831-835.		21
14	A blind extraction of temporally correlated but statistically dependent acoustic signals. , 0, , .		20
15	EEG auditory steady state responses classification for the novel BCI. , 2011, 2011, 4576-9.		20
16	Multivariate EMD based approach to EOG artifacts separation from EEG. , 2012, , .		19
17	Multichannel spectral pattern separation - An EEG processing application -. , 2009, , .		18
18	Multilinear Discriminant Analysis With Subspace Constraints for Single-Trial Classification of Event-Related Potentials. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2016, 10, 1295-1305.	7.3	18

#	ARTICLE	IF	CITATIONS
19	Blind signal extraction of signals with specified frequency band. , 0, , .		17
20	Classifying Mild Cognitive Impairment from Behavioral Responses in Emotional Arousal and Valence Evaluation Task â€” AI Approach for Early Dementia Biomarker in Aging Societies â€”. , 2020, 2020, 5537-5543.		17
21	Auditory Feedback for Brain Computer Interface Management â€” An EEG Data Sonification Approach. Lecture Notes in Computer Science, 2006, , 1232-1239.	1.0	16
22	Classifying P300 responses to vowel stimuli for auditory brain-computer interface. , 2013, , .		16
23	Robotic and Virtual Reality BCIs Using Spatial Tactile and Auditory Oddball Paradigms. Frontiers in Neurorobotics, 2016, 10, 20.	1.6	16
24	Chromatic and high-frequency cVEP-based BCI paradigm. , 2015, 2015, 1906-9.		14
25	Bivariate EMD-based image fusion. , 2009, , .		13
26	Spatial Auditory Two-step Input Japanese Syllabary Brain-computer Interface Speller. Procedia Technology, 2014, 18, 25-31.	1.1	13
27	Interactive component extraction from fEEG, fNIRS and peripheral biosignals for affective brainâ€”machine interfacing paradigms. Computers in Human Behavior, 2011, 27, 1512-1518.	5.1	12
28	Single trial BCI classification accuracy improvement for the novel virtual sound movement-based spatial auditory paradigm. , 2013, , .		11
29	Brain Evoked Potential Latencies Optimization for Spatial Auditory Brainâ€”Computer Interface. Cognitive Computation, 2015, 7, 34-43.	3.6	11
30	Toward the Human Communication Efficiency Monitoring from Captured Audio and Video Media in Real Environments. Lecture Notes in Computer Science, 2003, , 1093-1100.	1.0	11
31	Vibrotactile stimulus frequency optimization for the haptic BCI prototype. , 2012, , .		10
32	Chromatic SSVEP BCI paradigm targeting the higher frequency EEG responses. , 2014, , .		10
33	Brain Correlates of Taskâ€”Load and Dementia Elucidation with Tensor Machine Learning Using Oddball BCI Paradigm. , 2019, , .		10
34	Multi-command Tactile Brain Computer Interface: A Feasibility Study. Lecture Notes in Computer Science, 2013, , 50-59.	1.0	9
35	Dataâ€”Driven Multimodal Sleep Apnea Events Detection. Journal of Medical Systems, 2016, 40, 162.	2.2	9
36	Information Fusion for Perceptual Feedback: A Brain Activity Sonification Approach. , 2008, , 261-273.		9

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37	P300 responses classification improvement in tactile BCI with touch-sense glove. , 2014, , .		8
38	EMD Approach to Multichannel EEG Data - The Amplitude and Phase Synchrony Analysis Technique. Lecture Notes in Computer Science, 2008, , 122-129.	1.0	8
39	Constrained non-Negative Matrix Factorization Method for EEG Analysis in Early Detection of Alzheimer Disease. , 0, , .		7
40	Multivariate entropy analysis with data-driven scales. , 2012, , .		7
41	Tactile pressure brain-computer interface using point matrix pattern paradigm. , 2014, , .		7
42	Airborne Ultrasonic Tactile Display BCI. Springer Briefs in Electrical and Computer Engineering, 2015, , 57-65.	0.3	7
43	Tactile-force brain-computer interface paradigm. Multimedia Tools and Applications, 2015, 74, 8655-8667.	2.6	7
44	Tactile brain-computer interface using classification of P300 responses evoked by full body spatial vibrotactile stimuli. , 2016, , .		7
45	Tensor Based Simultaneous Feature Extraction and Sample Weighting for EEG Classification. Lecture Notes in Computer Science, 2010, , 26-33.	1.0	7
46	A Multimodal Approach to Communicative Interactivity Classification. Journal of Signal Processing Systems, 2007, 49, 317-328.	1.0	6
47	Emotional States Estimation from Multichannel EEG Maps. , 2008, , 695-698.		6
48	Spatial auditory BCI paradigm based on real and virtual sound image generation. , 2013, , .		6
49	Virtual reality feedback environment for brain computer interface paradigm using tactile and bone-conduction auditory modality paradigms. , 2014, , .		6
50	Older Adult Mild Cognitive Impairment Prediction from Multiscale Entropy EEG Patterns in Reminiscent Interior Image Working Memory Paradigm. , 2021, 2021, 6345-6348.		6
51	Neurotechnology and AI Approach for Early Dementia Onset Biomarker from EEG in Emotional Stimulus Evaluation Task. , 2021, 2021, 6675-6678.		6
52	Phase synchronization analysis of EEG channels using bivariate empirical mode decomposition. , 2013, , .		5
53	Multi-€command Chest Tactile Brain Computer Interface for Small Vehicle Robot Navigation. Lecture Notes in Computer Science, 2013, , 469-478.	1.0	5
54	Blind separation and filtering using state space models. , 0, , .		4

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55	Evaluation of the Communication Atmosphere. Lecture Notes in Computer Science, 2004, , 364-370.	1.0	4
56	Novel virtual moving sound-based spatial auditory brain-computer interface paradigm. , 2013, , .		4
57	Classification improvement of P300 response based auditory spatial speller brain-computer interface paradigm. , 2013, , .		4
58	EEG Signal Processing and Classification for the Novel Tactile-Force Brain-Computer Interface Paradigm. , 2013, , .		4
59	SVM classification study of code-modulated visual evoked potentials. , 2015, , .		4
60	Brainâ€™Robot Interfaces Using Spatial Tactile BCI Paradigms. Lecture Notes in Computer Science, 2015, , 132-137.	1.0	4
61	Smoothing of xDAWN spatial filters for robust extraction of event-related potentials. , 2016, , .		4
62	Signal Modality Characterisation of EEG with Response to Steady-State Auditory and Visual BCI Paradigms. IEEE International Workshop on Machine Learning for Signal Processing, 2007, , .	0.0	3
63	Psychophysical responses comparison in spatial visual, audiovisual, and auditory BCI-spelling paradigms. , 2012, , .		3
64	Inter-stimulus interval study for the tactile point-pressure brain-computer interface. , 2015, 2015, 1910-3.		3
65	Subspace-constrained multilinear discriminant analysis for ERP-based brain computer interface classification. , 2015, , .		3
66	Head-related impulse response cues for spatial auditory brain-computer interface. , 2015, 2015, 1071-4.		3
67	An Online Method for Detecting Nonlinearity Within a Signal. Lecture Notes in Computer Science, 2006, , 1216-1223.	1.0	3
68	Oscillatory Event Synchrony During Steady State Visual Evoked Potentials. , 2008, , 439-442.		3
69	EEG Filtering Optimization for Codeâ€™Modulated Chromatic Visual Evoked Potentialâ€™Based Brainâ€™Computer Interface. Lecture Notes in Computer Science, 2015, , 1-6.	1.0	3
70	Clustering of Spectral Patterns Based on EMD Components of EEG Channels with Applications to Neurophysiological Signals Separation. Lecture Notes in Computer Science, 2009, , 453-460.	1.0	3
71	Communicative Interactivity â€™ A Multimodal Communicative Situation Classification Approach. Lecture Notes in Computer Science, 2005, , 741-746.	1.0	3
72	Modelling the Communication Atmosphere: A Human Centered Multimedia Approach to Evaluate Communicative Situations. , 2007, , 155-169.		3

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73	Estimation of speech embedded in a reverberant environment with multiple sources of noise. , 0, , .		2
74	EEG epileptic seizures separation with multivariate empirical mode decomposition for diagnostic purposes. , 2013, 2013, 7128-31.		2
75	Auditory Brain-Computer Interface Paradigm with Head Related Impulse Response-Based Spatial Cues. , 2013, , .		2
76	Classification improvement and analysis of P300 responses with various inter-stimulus intervals in application to spatial visual brain-computer interface. , 2015, , .		2
77	Student teaching and research laboratory focusing on brain-computer interface paradigms - A creative environment for computer science students - , 2015, 2015, 3667-70.		2
78	Modeling Communication Atmosphere. , 0, , 353-369.		2
79	A Sixteen-Command and 40ÂHz Carrier Frequency Code-Modulated Visual Evoked Potential BCI. Springer Briefs in Electrical and Computer Engineering, 2017, , 97-104.	0.3	2
80	Airborne ultrasonic tactile display contactless brain-computer interface paradigm. Frontiers in Human Neuroscience, 0, 9, .	1.0	2
81	Imagery Movement Paradigm User Adaptation Improvement with Quasi-movements Phenomenon. , 2011, , 677-681.		2
82	On the synchrony of empirical mode decompositions with application to electroencephalography. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	1
83	Emotional empathy transition patterns from human brain responses in interactive communication situations. AI and Society, 2011, 26, 301-315.	3.1	1
84	Spatial auditory BCI with ERP responses to front-back to the head stimuli distinction support. , 2013, , .		1
85	Bayesian delay time estimation of brainwaves using N100 response in tactile-force Brain-Computer Interface. , 2014, , .		1
86	Tactile and bone-conduction auditory brain computer interface for vision and hearing impaired users — Stimulus pattern and BCI accuracy improvement. , 2014, , .		1
87	Brain-computer interface using ambisonics-reproduced dynamic sound image effects. , 2014, , .		1
88	Fingertip stimulus cue-based tactile brain-computer interface. , 2015, , .		1
89	Multifunction C-band radar development in Poland: Electronically scanned array technology. , 2015, , .		1
90	Brainâ€Robot and Speller Interfaces Using Spatial Multisensory Brain-computer Interface Paradigms. Frontiers in Computational Neuroscience, 0, 9, .	1.2	1

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91	EMD Based Power Spectral Pattern Analysis for Quasi-Brain-Death EEG. Lecture Notes in Computer Science, 2009, , 814-823.	1.0	1
92	An Auditory Oddball Based Brain-Computer Interface System Using Multivariate EMD. Lecture Notes in Computer Science, 2010, , 140-148.	1.0	1
93	Towards Affective BCI/BMI Paradigms – Analysis of fEEG and fNIRS Brain Responses to Emotional Speech and Facial Videos. , 2011, , 671-675.		1
94	Microstrip Patch Array for the Mobile Terminal Antenna of a Mobile Communication System. , 1997, , .		0
95	Regularised Adaptive Fir Filters for Image Denoising. , 2007, , .		0
96	Nonnegative Tensor Factorization with Smoothness Constraints. Lecture Notes in Computer Science, 2008, , 300-307.	1.0	0
97	Conditioning multimodal information for smart environments. , 2009, , .		0
98	Performance evaluation of multisensor track formation algorithms in urban environment. , 2012, , .		0
99	Bone-Conduction-Based Brain Computer Interface Paradigm – EEG Signal Processing, Feature Extraction and Classification. , 2013, , .		0
100	Multichannel EEG sonification with ambisonics spatial sound environment. , 2014, , .		0
101	Parallel memory-efficient processing of BCI data. , 2014, , .		0
102	Variable sound elevation features for head-related impulse response spatial auditory BCI. , 2015, , .		0
103	Motor Priming as a Brain-Computer Interface. Lecture Notes in Computer Science, 2016, , 538-545.	1.0	0
104	Smart Sensor Mesh: Intelligent Sensor Clusters Configuration and Location Discovery for Collaborative Information Processing. Lecture Notes in Computer Science, 2005, , 147-157.	1.0	0
105	STRUCTURAL REANALYSIS OF RESPONSES TO MUSICAL TONALITY: COMMONALITY WITH THE NEURAL PROCESSING OF EMOTION IN LANGUAGE. , 2012, , .		0
106	Multi-command Tactile and Bone-Conduction-Auditory Brain-Computer Interface. Springer Briefs in Electrical and Computer Engineering, 2014, , 125-131.	0.3	0
107	Two-Step Input Spatial Auditory BCI for Japanese Kana Characters. Advances in Cognitive Neurodynamics, 2016, , 383-389.	0.1	0