# Behtash Babadi

List of Publications by Year
in descending order

| 48 papers | 1,542 citations | 471509 17 h-index | 477307 29 g-index |
|---|---|---|---|
| 56 all docs | 56 docs citations | 56 times ranked | 1701 citing authors |

| # | Article | IF | Citations |
|---|---------|----|-----------| 
| 1 | A Review of Multitaper Spectral Analysis. IEEE Transactions on Biomedical Engineering, 2014, 61, 1555-1564. | 4.2 | 244 |
| 2 | SPARLS: The Sparse RLS Algorithm. IEEE Transactions on Signal Processing, 2010, 58, 4013-4025. | 5.3 | 180 |
| 3 | A Transition in Brain State during Propofol-Induced Unconsciousness. Journal of Neuroscience, 2014, 34, 839-845. | 3.6 | 115 |
| 4 | Small Networks Encode Decision-Making in Primary Auditory Cortex. Neuron, 2018, 97, 885-897.e6. | 8.1 | 113 |
| 5 | Sparsity enables estimation of both subcortical and cortical activity from MEG and EEG. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10465-E10474. | 7.1 | 106 |
| 6 | Real-Time Tracking of Selective Auditory Attention From M/EEG: A Bayesian Filtering Approach. Frontiers in Neuroscience, 2018, 12, 262. | 2.8 | 94 |
| 7 | Parallel Processing of Sound Dynamics across Mouse Auditory Cortex via Spatially Patterned Thalamic Inputs and Distinct Areal Intracortical Circuits. Cell Reports, 2019, 27, 872-885.e7. | 6.4 | 88 |
| 8 | Extracting neuronal functional network dynamics via adaptive Granger causality analysis. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3869-E3878. | 7.1 | 72 |
| 9 | Convergence and Stability of Iteratively Re-weighted Least Squares Algorithms. IEEE Transactions on Signal Processing, 2014, 62, 183-195. | 5.3 | 67 |
| 10 | Robust decoding of selective auditory attention from MEG in a competing-speaker environment via state-space modeling. NeuroImage, 2016, 124, 906-917. | 4.2 | 67 |
| 11 | An Adaptive Greedy Algorithm With Application to Nonlinear Communications. IEEE Transactions on Signal Processing, 2010, 58, 2998-3007. | 5.3 | 61 |
| 12 | A Subspace Pursuit-based Iterative Greedy Hierarchical solution to the neuromagnetic inverse problem. NeuroImage, 2014, 87, 427-443. | 4.2 | 41 |
| 13 | Dynamic Estimation of the Auditory Temporal Response Function From MEG in Competing-Speaker Environments. IEEE Transactions on Biomedical Engineering, 2017, 64, 1896-1905. | 4.2 | 37 |
| 14 | DiBa: A Data-Driven Bayesian Algorithm for Sleep Spindle Detection. IEEE Transactions on Biomedical Engineering, 2012, 59, 483-493. | 4.2 | 30 |
| 15 | Computationally Efficient Algorithms for Sparse, Dynamic Solutions to the EEG Source Localization Problem. IEEE Transactions on Biomedical Engineering, 2018, 65, 1359-1372. | 4.2 | 30 |
| 16 | Robust spectrotemporal decomposition by iteratively reweighted least squares. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E5336-45. | 7.1 | 26 |
| 17 | Sequential transmission of task-relevant information in cortical neuronal networks. Cell Reports, 2022, 39, 110878. | 6.4 | 23 |
| 18 | Recursive Sparse Point Process Regression With Application to Spectrotemporal Receptive Field Plasticity Analysis. IEEE Transactions on Signal Processing, 2016, 64, 2026-2039. | 5.3 | 22 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Direct extraction of signal and noise correlations from two-photon calcium imaging of ensemble neuronal activity. ELife, 2021, 10, . | 6.0 | 15 |
| 20 | Fast and Stable Signal Deconvolution via Compressible State-Space Models. IEEE Transactions on Biomedical Engineering, 2018, 65, 74-86. | 4.2 | 14 |
| 21 | Neuro-current response functions: A unified approach to MEG source analysis under the continuous stimuli paradigm. NeuroImage, 2020, 211, 116528. | 4.2 | 14 |
| 22 | Multitaper spectral analysis of neuronal spiking activity driven by latent stationary processes. Signal Processing, 2020, 170, 107429. | 3.7 | 9 |
| 23 | Robust Estimation of Self-Exciting Generalized Linear Models With Application to Neuronal Modeling. IEEE Transactions on Signal Processing, 2017, 65, 3733-3748. | 5.3 | 8 |
| 24 | Sampling Requirements for Stable Autoregressive Estimation. IEEE Transactions on Signal Processing, 2017, 65, 2333-2347. | 5.3 | 7 |
| 25 | Dynamic estimation of auditory temporal response functions via state-space models with Gaussian mixture process noise. PLoS Computational Biology, 2020, 16, e1008172. | 3.2 | 7 |
| 26 | Dynamic Bayesian Multitaper Spectral Analysis. IEEE Transactions on Signal Processing, 2018, 66, 1394-1409. | 5.3 | 6 |
| 27 | Robust Estimation of Sparse Narrowband Spectra from Neuronal Spiking Data. IEEE Transactions on Biomedical Engineering, 2017, 64, 2462-2474. | 4.2 | 5 |
| 28 | Granger Causal Inference from Indirect Low-Dimensional Measurements with Application to MEG Functional Connectivity Analysis. , 2020, , . | | 5 |
| 29 | Real-Time Decoding of Auditory Attention from EEG via Bayesian Filtering. , 2018, 2018, 25-28. | | 4 |
| 30 | Real-Time Tracking of Magnetoencephalographic Neuromarkers during a Dynamic Attention-Switching Task. , 2019, 2019, 4148-4151. | | 4 |
| 31 | Robust Inference of Neuronal Correlations from Blurred and Noisy Spiking Observations. , 2020, , . | | 4 |
| 32 | Efficient estimation of compressible state-space models with application to calcium signal deconvolution. , 2016, , . | | 2 |
| 33 | Dynamic estimation of causal influences in sparsely-interacting neuronal ensembles. , 2016, , . | | 2 |
| 34 | Multiplicative updates for optimization problems with dynamics. , 2017, , . | | 2 |
| 35 | Estimation of State-Space Models with Gaussian Mixture Process Noise. , 2019, , . | | 2 |
| 36 | Corrections to "Asymptotic Achievability of the Cramér–Rao Bound for Noisy Compressive Sampling" [Mar 09 1233-1236]. IEEE Transactions on Signal Processing, 2017, 65, 4973-4974. | 5.3 | 1 |

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|---|---------|----|-----------|
| 37 | Cortical Localization of the Auditory Temporal Response Function from MEG via Non-convex Optimization. , 2018, , . | | 1 |
| 38 | Multitaper Analysis of Evolutionary Spectral Density Matrix From Multivariate Spiking Observations. , 2019, , . | | 1 |
| 39 | A Statistical Approach to Dynamic Synchrony Analysis of Neuronal Ensemble Spiking. , 2019, , . | | 1 |
| 40 | Multitaper Analysis of Semi-Stationary Spectra From Multivariate Neuronal Spiking Observations. IEEE Transactions on Signal Processing, 2020, 68, 4382-4396. | 5.3 | 1 |
| 41 | Sparse spectral estimation from point process observations. , 2017, , . | | 0 |
| 42 | Sparsity Meets Dynamics: Robust Solutions to Neuronal Identification and Inverse Problems. , 2018, , 111-140. | | 0 |
| 43 | Neural Encoding and Decoding. , 2021, , 1-24. | | 0 |
| 44 | Adaptive Frequency-domain Granger Causal Inference from Neuronal Ensemble Data. , 2020, , . | | 0 |
| 45 | Title is missing!. , 2020, 16, e1008172. | | 0 |
| 46 | Title is missing!. , 2020, 16, e1008172. | | 0 |
| 47 | Title is missing!. , 2020, 16, e1008172. | | 0 |
| 48 | Title is missing!. , 2020, 16, e1008172. | | 0 |