

# Ben D B Willmore

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3817621/publications.pdf>

Version: 2024-02-01

28  
papers

1,446  
citations

430442

18  
h-index

580395

25  
g-index

36  
all docs

36  
docs citations

36  
times ranked

1250  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Contrast Gain Control in Auditory Cortex. <i>Neuron</i> , 2011, 70, 1178-1191.   | 3.8 | 233       |
| 2  | Constructing Noise-Invariant Representations of Sound in the Auditory Pathway. <i>PLoS Biology</i> , 2013, 11, e1001710.   | 2.6 | 130       |
| 3  | The Receptive-Field Organization of Simple Cells in Primary Visual Cortex of Ferrets under Natural Scene Stimulation. <i>Journal of Neuroscience</i> , 2003, 23, 4746-4759.        | 1.7 | 114       |
| 4  | Neural Representation of Natural Images in Visual Area V2. <i>Journal of Neuroscience</i> , 2010, 30, 2102-2114.   | 1.7 | 98        |
| 5  | Independent Components of Color Natural Scenes Resemble V1 Neurons in Their Spatial and Color Tuning. <i>Journal of Neurophysiology</i> , 2004, 91, 2859-2873.                     | 0.9 | 81        |
| 6  | Sparse coding in striate and extrastriate visual cortex. <i>Journal of Neurophysiology</i> , 2011, 105, 2907-2919.   | 0.9 | 78        |
| 7  | Measuring the Performance of Neural Models. <i>Frontiers in Computational Neuroscience</i> , 2016, 10, 10.   | 1.2 | 70        |
| 8  | Spectrotemporal Contrast Kernels for Neurons in Primary Auditory Cortex. <i>Journal of Neuroscience</i> , 2012, 32, 11271-11284.   | 1.7 | 68        |
| 9  | Network Receptive Field Modeling Reveals Extensive Integration and Multi-feature Selectivity in Auditory Cortical Neurons. <i>PLoS Computational Biology</i> , 2016, 12, e1005113. | 1.5 | 56        |
| 10 | Sensory cortex is optimized for prediction of future input. <i>ELife</i> , 2018, 7, .  | 2.8 | 53        |
| 11 | Recent advances in understanding the auditory cortex. <i>F1000Research</i> , 2018, 7, 1555.  | 0.8 | 49        |
| 12 | Incorporating Midbrain Adaptation to Mean Sound Level Improves Models of Auditory Cortical Processing. <i>Journal of Neuroscience</i> , 2016, 36, 280-289.                         | 1.7 | 47        |
| 13 | Neural circuits underlying auditory contrast gain control and their perceptual implications. <i>Nature Communications</i> , 2020, 11, 324.   | 5.8 | 47        |
| 14 | Hearing in noisy environments: noise invariance and contrast gain control. <i>Journal of Physiology</i> , 2014, 592, 3371-3381.  | 1.3 | 39        |
| 15 | Methods for first-order kernel estimation: simple-cell receptive fields from responses to natural scenes. <i>Network: Computation in Neural Systems</i> , 2003, 14, 553-577.       | 2.2 | 34        |
| 16 | The Berkeley Wavelet Transform: A Biologically Inspired Orthogonal Wavelet Transform. <i>Neural Computation</i> , 2008, 20, 1537-1564.   | 1.3 | 31        |
| 17 | A Comparison of Natural-Image-Based Models of Simple-Cell Coding. <i>Perception</i> , 2000, 29, 1017-1040.   | 0.5 | 30        |
| 18 | Contrast gain control in mouse auditory cortex. <i>Journal of Neurophysiology</i> , 2018, 120, 1872-1884.  | 0.9 | 30        |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Simple transformations capture auditory input to cortex. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 28442-28451.                          | 3.3 | 27        |
| 20 | Temporal predictability as a grouping cue in the perception of auditory streams. Journal of the Acoustical Society of America, 2013, 134, EL98-EL104.                                      | 0.5 | 18        |
| 21 | A dynamic network model of temporal receptive fields in primary auditory cortex. PLoS Computational Biology, 2019, 15, e1006618.   | 1.5 | 18        |
| 22 | Contrast gain control occurs independently of both parvalbumin-positive interneuron activity and shunting inhibition in auditory cortex. Journal of Neurophysiology, 2020, 123, 1536-1551. | 0.9 | 17        |
| 23 | Methods for first-order kernel estimation: simple-cell receptive fields from responses to natural scenes. , 0, .   |     | 16        |
| 24 | Methods for first-order kernel estimation: simple-cell receptive fields from responses to natural scenes. Network: Computation in Neural Systems, 2003, 14, 553-77.                        | 2.2 | 14        |
| 25 | Contrast normalization contributes to a biologically-plausible model of receptive-field development in primary visual cortex (V1). Vision Research, 2012, 54, 49-60.                       | 0.7 | 12        |
| 26 | Auditory Cortex: Representation through Sparsification?. Current Biology, 2009, 19, R1123-R1125.   | 1.8 | 8         |
| 27 | Cortical adaptation to sound reverberation. ELife, 0, 11, .  | 2.8 | 7         |
| 28 | Object Vision: A Matter of Principle. Current Biology, 2011, 21, R153-R155.  | 1.8 | 0         |