List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Selective control of synaptically-connected circuit elements by all-optical synapses. Communications Biology, 2022, 5, 33. | 4.4 | 14 |
| 2 | Selective postnatal excitation of neocortical pyramidal neurons results in distinctive behavioral and circuit deficits in adulthood. IScience, 2021, 24, 102157. | 4.1 | 18 |
| 3 | Wave-like dopamine dynamics as a mechanism for spatiotemporal credit assignment. Cell, 2021, 184, 2733-2749.e16. | 28.9 | 112 |
| 4 | The BioLuminescentâ€OptoGenetic <i>in vivo</i> response to coelenterazine is proportional, sensitive, and specific in neocortex. Journal of Neuroscience Research, 2020, 98, 471-480. | 2.9 | 18 |
| 5 | BLâ€OC: BioLuminescentâ€OptoGenetics. Journal of Neuroscience Research, 2020, 98, 469-470. | 2.9 | 5 |
| 6 | Dysfunction of cortical GABAergic neurons leads to sensory hyper-reactivity in a Shank3 mouse model of ASD. Nature Neuroscience, 2020, 23, 520-532. | 14.8 | 115 |
| 7 | Layer 6 ensembles can selectively regulate the behavioral impact and layer-specific representation of sensory deviants. ELife, 2020, 9, . | 6.0 | 20 |
| 8 | Human Neocortical Neurosolver (HNN), a new software tool for interpreting the cellular and network origin of human MEG/EEG data. ELife, 2020, 9, . | 6.0 | 68 |
| 9 | Persistent Gamma Spiking in SI Nonsensory Fast Spiking Cells Predicts Perceptual Success. Neuron, 2019, 103, 1150-1163.e5. | 8.1 | 14 |
| 10 | A three-dimensional neural spheroid model for capillary-like network formation. Journal of Neuroscience Methods, 2018, 299, 55-63. | 2.5 | 39 |
| 11 | Systematic Examination of the Impact of Depolarization Duration on Thalamic Reticular Nucleus Firing in vivo. Neuroscience, 2018, 368, 187-198. | 2.3 | 3 |
| 12 | A Prospective Study of the Impact of Transcranial Alternating Current Stimulation on EEG Correlates of Somatosensory Perception. Frontiers in Psychology, 2018, 9, 2117. | 2.1 | 21 |
| 13 | Early Life Stress Drives Sex-Selective Impairment in Reversal Learning by Affecting Parvalbumin Interneurons in Orbitofrontal Cortex of Mice. Cell Reports, 2018, 25, 2299-2307.e4. | 6.4 | 82 |
| 14 | Thalamic Bursts Down-regulate Cortical Theta and Nociceptive Behavior. Scientific Reports, 2017, 7, 2482. | 3.3 | 32 |
| 15 | The rate of transient beta frequency events predicts behavior across tasks and species. ELife, 2017, 6, . | 6.0 | 220 |
| 16 | Neural mechanisms of transient neocortical beta rhythms: Converging evidence from humans, computational modeling, monkeys, and mice. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4885-94. | 7.1 | 360 |
| 17 | Combined Optogenetic and Chemogenetic Control of Neurons. Methods in Molecular Biology, 2016, 1408, 207-225. | 0.9 | 25 |
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18 Interactionist Neuroscience. Neuron, 2015, 88, 855-860.

8.1 29

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|----|--|------|-----------|
| 19 | Attention Drives Synchronization of Alpha and Beta Rhythms between Right Inferior Frontal and Primary Sensory Neocortex. Journal of Neuroscience, 2015, 35, 2074-2082. | 3.6 | 79 |
| 20 | For things needing your attention: the role of neocortical gamma in sensory perception. Current Opinion in Neurobiology, 2015, 31, 254-263. | 4.2 | 39 |
| 21 | Gamma-range synchronization of fast-spiking interneurons can enhance detection of tactile stimuli. Nature Neuroscience, 2014, 17, 1371-1379. | 14.8 | 137 |
| 22 | Mindfulness starts with the body: somatosensory attention and top-down modulation of cortical alpha rhythms in mindfulness meditation. Frontiers in Human Neuroscience, 2013, 7, 12. | 2.0 | 202 |
| 23 | Temporal and Mosaic Tsc1 Deletion in the Developing Thalamus Disrupts Thalamocortical Circuitry, Neural Function, and Behavior. Neuron, 2013, 78, 895-909. | 8.1 | 60 |
| 24 | Neocortical Correlates of Vibrotactile Detection in Humans. Journal of Cognitive Neuroscience, 2013, 25, 49-61. | 2.3 | 14 |
| 25 | The flexDrive: an ultra-light implant for optical control and highly parallel chronic recording of neuronal ensembles in freely moving mice. Frontiers in Systems Neuroscience, 2013, 7, 8. | 2.5 | 137 |
| 26 | Increase in Sensorimotor Cortex Response to Somatosensory Stimulation Over Subacute Poststroke Period Correlates With Motor Recovery in Hemiparetic Patients. Neurorehabilitation and Neural Repair, 2012, 26, 325-334. | 2.9 | 28 |
| 27 | Effects of mindfulness meditation training on anticipatory alpha modulation in primary somatosensory cortex. Brain Research Bulletin, 2011, 85, 96-103. | 3.0 | 99 |
| 28 | Selective optical drive of thalamic reticular nucleus generates thalamic bursts and cortical spindles. Nature Neuroscience, 2011, 14, 1118-1120. | 14.8 | 248 |
| 29 | Cortical Circuits: Finding Balance in the Brain. Current Biology, 2011, 21, R956-R957. | 3.9 | 4 |
| 30 | Chronically implanted hyperdrive for cortical recording and optogenetic control in behaving mice. , 2011, 2011, 7529-32. | | 12 |
| 31 | Characterization of the Functional MRI Response Temporal Linearity via Optical Control of Neocortical Pyramidal Neurons. Journal of Neuroscience, 2011, 31, 15086-15091. | 3.6 | 117 |
| 32 | Activity in the Barrel Cortex During Active Behavior and Sleep. Journal of Neurophysiology, 2010, 103, 2074-2084. | 1.8 | 35 |
| 33 | Targeted optogenetic stimulation and recording of neurons in vivo using cell-type-specific expression of Channelrhodopsin-2. Nature Protocols, 2010, 5, 247-254. | 12.0 | 477 |
| 34 | What do We Gain from Gamma? Local Dynamic Gain Modulation Drives Enhanced Efficacy and Efficiency of Signal Transmission. Frontiers in Human Neuroscience, 2010, 04, 185. | 2.0 | 38 |
| 35 | Computational Modeling of Distinct Neocortical Oscillations Driven by Cell-Type Selective Optogenetic Drive: Separable Resonant Circuits Controlled by Low-Threshold Spiking and Fast-Spiking Interneurons. Frontiers in Human Neuroscience, 2010, 4, 198. | 2.0 | 76 |
| 36 | Transformations in oscillatory activity and evoked responses in primary somatosensory cortex in middle age: A combined computational neural modeling and MEG study. NeuroImage, 2010, 52, 897-912. | 4.2 | 44 |

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|----|--|------|-----------|
| 37 | Neocortical Interneurons: From Diversity, Strength. Cell, 2010, 142, 184-188. | 28.9 | 95 |
| 38 | Cued Spatial Attention Drives Functionally Relevant Modulation of the Mu Rhythm in Primary Somatosensory Cortex. Journal of Neuroscience, 2010, 30, 13760-13765. | 3.6 | 234 |
| 39 | What can crossmodal aftereffects reveal about neural representation and dynamics?. Communicative and Integrative Biology, 2009, 2, 479-481. | 1.4 | 10 |
| 40 | Motion Aftereffects Transfer between Touch and Vision. Current Biology, 2009, 19, 745-750. | 3.9 | 140 |
| 41 | Autism Overflows with Syntheses. Neuropsychology Review, 2009, 19, 273-274. | 4.9 | 2 |
| 42 | Driving fast-spiking cells induces gamma rhythm and controls sensory responses. Nature, 2009, 459, 663-667. | 27.8 | 2,250 |
| 43 | Quantitative Analysis and Biophysically Realistic Neural Modeling of the MEG Mu Rhythm: Rhythmogenesis and Modulation of Sensory-Evoked Responses. Journal of Neurophysiology, 2009, 102, 3554-3572. | 1.8 | 203 |
| 44 | Pinacidil induces vascular dilation and hyperemia in vivo and does not impact biophysical properties of neurons and astrocytes in vitro. Cleveland Clinic Journal of Medicine, 2009, 76, S80-S85. | 1.3 | 12 |
| 45 | Embodied Information Processing: Vibrissa Mechanics and Texture Features Shape Micromotions in Actively Sensing Rats. Neuron, 2008, 57, 599-613. | 8.1 | 185 |
| 46 | Response to Letter: Ritt etÂal., "Embodied Information Processing: Vibrissa Mechanics and Texture Features Shape Micromotions in Actively Sensing Rats.―Neuron 57, 599–613. Neuron, 2008, 60, 745-747. | 8.1 | 0 |
| 47 | Cross-modal extinction in a boy with severely autistic behaviour and high verbal intelligence. Cognitive Neuropsychology, 2008, 25, 635-652. | 1.1 | 25 |
| 48 | The Hemo-Neural Hypothesis: On The Role of Blood Flow in Information Processing. Journal of Neurophysiology, 2008, 99, 2035-2047. | 1.8 | 198 |
| 49 | Neural Correlates of Tactile Detection: A Combined Magnetoencephalography and Biophysically Based Computational Modeling Study. Journal of Neuroscience, 2007, 27, 10751-10764. | 3.6 | 142 |
| 50 | Cortical Dynamics As A Therapeutic Mechanism for Touch Healing. Journal of Alternative and Complementary Medicine, 2007, 13, 59-66. | 2.1 | 25 |
| 51 | A somatotopic map of vibrissa motion direction within a barrel column. Nature Neuroscience, 2006, 9, 543-551. | 14.8 | 149 |
| 52 | Structural and functional plasticity in the somatosensory cortex of chronic stroke patients. Brain, 2006, 129, 2722-2733. | 7.6 | 155 |
| 53 | Meditation experience is associated with increased cortical thickness. NeuroReport, 2005, 16, 1893-1897. | 1.2 | 1,258 |
| 54 | Frequency-Dependent Processing in the Vibrissa Sensory System. Journal of Neurophysiology, 2004, 91, 2390-2399. | 1.8 | 99 |

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|----|---|-----|-----------|
| 55 | Neural Correlates of Vibrissa Resonance. Neuron, 2004, 42, 451-463. | 8.1 | 116 |
| 56 | Band-Pass Response Properties of Rat SI Neurons. Journal of Neurophysiology, 2003, 90, 1379-1391. | 1.8 | 80 |
| 57 | Vibrissa Resonance as a Transduction Mechanism for Tactile Encoding. Journal of Neuroscience, 2003, 23, 6499-6509. | 3.6 | 157 |
| 58 | A Pilot Study of Somatotopic Mapping After Cortical Infarct. Stroke, 2000, 31, 668-671. | 2.0 | 134 |
| 59 | Segregation of Somatosensory Activation in the Human Rolandic Cortex Using fMRI. Journal of Neurophysiology, 2000, 84, 558-569. | 1.8 | 156 |
| 60 | Dynamics of neuronal processing in rat somatosensory cortex. Trends in Neurosciences, 1999, 22, 513-520. | 8.6 | 143 |
| 61 | Temporal Modulation of Spatial Borders in Rat Barrel Cortex. Journal of Neurophysiology, 1998, 79, 464-470. | 1.8 | 66 |
| 62 | Spatio-Temporal Subthreshold Receptive Fields in the Vibrissa Representation of Rat Primary Somatosensory Cortex. Journal of Neurophysiology, 1998, 80, 2882-2892. | 1.8 | 297 |
| 63 | Cortical plasticity and LTP. Behavioral and Brain Sciences, 1997, 20, 623-624. | 0.7 | 1 |
| 64 | Persistent Gamma Spiking in Non-Sensory Fast-Spiking Cells Predicts Perceptual Success. SSRN Electronic Journal, 0, , . | 0.4 | 0 |