# Fabrizio Gabbiani

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9558755/publications.pdf

Version: 2024-02-01

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|---|---|---|---|
| 43 papers | 2,667 citations | 279798 23 h-index | 276875 41 g-index |
| 54 all docs | 54 docs citations | 54 times ranked | 1798 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Burst firing in sensory systems. Nature Reviews Neuroscience, 2004, 5, 13-23. | 10.2 | 389 |
| 2 | Multiplicative computation in a visual neuron sensitive to looming. Nature, 2002, 420, 320-324. | 27.8 | 351 |
| 3 | Computation of Object Approach by a Wide-Field, Motion-Sensitive Neuron. Journal of Neuroscience, 1999, 19, 1122-1141. | 3.6 | 251 |
| 4 | Collision Detection as a Model for Sensory-Motor Integration. Annual Review of Neuroscience, 2011, 34, 1-19. | 10.7 | 148 |
| 5 | Spike frequency adaptation mediates looming stimulus selectivity in a collision-detecting neuron. Nature Neuroscience, 2009, 12, 318-326. | 14.8 | 122 |
| 6 | Multiplexing of Motor Information in the Discharge of a Collision Detecting Neuron during Escape Behaviors. Neuron, 2011, 69, 147-158. | 8.1 | 117 |
| 7 | Invariance of Angular Threshold Computation in a Wide-Field Looming-SensitiveÂNeuron. Journal of Neuroscience, 2001, 21, 314-329. | 3.6 | 100 |
| 8 | A Novel Neuronal Pathway for Visually Guided Escape inDrosophila melanogaster. Journal of Neurophysiology, 2009, 102, 875-885. | 1.8 | 100 |
| 9 | Relationship between the Phases of Sensory and Motor Activity during a Looming-Evoked Multistage Escape Behavior. Journal of Neuroscience, 2007, 27, 10047-10059. | 3.6 | 98 |
| 10 | Complementary mechanisms create direction selectivity in the fly. ELife, 2016, 5, . | 6.0 | 87 |
| 11 | Wireless Neural/EMG Telemetry Systems for Small Freely Moving Animals. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 103-111. | 4.0 | 75 |
| 12 | Robustness and Variability of Neuronal Coding by Amplitude-Sensitive Afferents in the Weakly Electric FishEigenmannia. Journal of Neurophysiology, 2000, 84, 189-204. | 1.8 | 68 |
| 13 | Spatial Distribution of Inputs and Local Receptive Field Properties of a Wide-Field, Looming Sensitive Neuron. Journal of Neurophysiology, 2005, 93, 2240-2253. | 1.8 | 67 |
| 14 | Multiplication and stimulus invariance in a looming-sensitive neuron. Journal of Physiology (Paris), 2004, 98, 19-34. | 2.1 | 65 |
| 15 | Coding of Time-Varying Signals in Spike Trains of Integrate-and-Fire Neurons with Random Threshold. Neural Computation, 1996, 8, 44-66. | 2.2 | 63 |
| 16 | Spike-Frequency Adaptation and Intrinsic Properties of an Identified, Looming-Sensitive Neuron. Journal of Neurophysiology, 2006, 96, 2951-2962. | 1.8 | 57 |
| 17 | Precise Subcellular Input Retinotopy and Its Computational Consequences in an Identified Visual Interneuron. Neuron, 2009, 63, 830-842. | 8.1 | 50 |
| 18 | Synchronized Neural Input Shapes Stimulus Selectivity in a Collision-Detecting Neuron. Current Biology, 2010, 20, 2052-2057. | 3.9 | 47 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Time-Dependent Activation of Feed-Forward Inhibition in a Looming-Sensitive Neuron. Journal of Neurophysiology, 2005, 94, 2150-2161. | 1.8 | 44 |
| 20 | Role of spike-frequency adaptation in shaping neuronal response to dynamic stimuli. Biological Cybernetics, 2009, 100, 505-520. | 1.3 | 44 |
| 21 | Coding of time-varying signals in spike trains of linear and half-wave rectifying neurons. Network: Computation in Neural Systems, 1996, 7, 61-85. | 3.6 | 37 |
| 22 | Influence of Electrotonic Structure and Synaptic Mapping on the Receptive Field Properties of a Collision-Detecting Neuron. Journal of Neurophysiology, 2007, 97, 159-177. | 1.8 | 33 |
| 23 | Spatiotemporal Receptive Field Properties of a Looming-Sensitive Neuron in Solitarious and Gregarious Phases of the Desert Locust. Journal of Neurophysiology, 2010, 103, 779-792. | 1.8 | 33 |
| 24 | Logarithmic Compression of Sensory Signals within the Dendritic Tree of a Collision-Sensitive Neuron. Journal of Neuroscience, 2012, 32, 4923-4934. | 3.6 | 29 |
| 25 | Biophysics of object segmentation in a collision-detecting neuron. ELife, 2018, 7, . | 6.0 | 23 |
| 26 | Fine and distributed subcellular retinotopy of excitatory inputs to the dendritic tree of a collision-detecting neuron. Journal of Neurophysiology, 2016, 115, 3101-3112. | 1.8 | 21 |
| 27 | Pre-synaptic Muscarinic Excitation Enhances the Discrimination of Looming Stimuli in a Collision-Detection Neuron. Cell Reports, 2018, 23, 2365-2378. | 6.4 | 20 |
| 28 | Impact of neural noise on a sensory-motor pathway signaling impending collision. Journal of Neurophysiology, 2012, 107, 1067-1079. | 1.8 | 19 |
| 29 | Active membrane conductances and morphology of a collision detection neuron broaden its impedance profile and improve discrimination of input synchrony. Journal of Neurophysiology, 2019, 122, 691-706. | 1.8 | 17 |
| 30 | Feedforward Inhibition Conveys Time-Varying Stimulus Information in a Collision Detection Circuit. Current Biology, 2018, 28, 1509-1521.e3. | 3.9 | 15 |
| 31 | A wireless neural/EMG telemetry system for freely moving insects. , 2010, , . | | 14 |
| 32 | Optogenetic manipulation of medullary neurons in the locust optic lobe. Journal of Neurophysiology, 2018, 120, 2049-2058. | 1.8 | 9 |
| 33 | A Genetic Push to Understand Motion Detection. Neuron, 2011, 70, 1023-1025. | 8.1 | 8 |
| 34 | M current regulates firing mode and spike reliability in a collision-detecting neuron. Journal of Neurophysiology, 2018, 120, 1753-1764. | 1.8 | 8 |
| 35 | Drosophila Neurobiology: No Escape from â€˜Big Dataâ€™ Science. Current Biology, 2015, 25, R606-R608. | 3.9 | 6 |
| 36 | Molecular characterization and distribution of the voltage-gated sodium channel, Para, in the brain of the grasshopper and vinegar fly. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2020, 206, 289-307. | 1.6 | 6 |

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|---|---|---|---|
| 37 | Near-Optimal Decoding of Transient Stimuli from Coupled Neuronal Subpopulations. Journal of Neuroscience, 2014, 34, 12206-12222. | 3.6 | 5 |
| 38 | Force Measurements on Locusts during Visually-Evoked Collision Avoidance Maneuvers. International Journal of Micro Air Vehicles, 2012, 4, 227-249. | 1.3 | 4 |
| 39 | Genetic and viral approaches to record or manipulate neurons in insects. Current Opinion in Insect Science, 2021, 48, 79-88. | 4.4 | 4 |
| 40 | Interpolating between Cellular Biophysics and Computation in Single Neurons. Neuron, 2003, 37, 890-891. | 8.1 | 2 |
| 41 | Linking dendritic processing to computation and behavior in invertebrates. , 2016, , 639-676. | | 1 |
| 42 | Collision Avoidance: Broadening the Toolkit for Directionally Selective Motion Computations. Current Biology, 2018, 28, R124-R126. | 3.9 | 1 |
| 43 | Combined Two-Photon Calcium Imaging and Single-Ommatidium Visual Stimulation to Study Fine-Scale Retinotopy in Insects. Neuromethods, 2018, , 185-206. | 0.3 | 1 |