

# Giorgio Carmignoto

## List of Publications by Year in descending order

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83  
papers

13,401  
citations

46984

47  
h-index

62565

80  
g-index

84  
all docs

84  
docs citations

84  
times ranked

10392  
citing authors

#	ARTICLE	IF	CITATIONS
1	Astrocytes Modulate Somatostatin Interneuron Signaling in the Visual Cortex. <i>Cells</i> , 2022, 11, 1400.	1.8	5
2	Dysbindin-1A modulation of astrocytic dopamine and basal ganglia dependent behaviors relevant to schizophrenia. <i>Molecular Psychiatry</i> , 2022, 27, 4201-4217.	4.1	2
3	Calcium Signals in Astrocyte Microdomains, a Decade of Great Advances. <i>Frontiers in Cellular Neuroscience</i> , 2021, 15, 673433.	1.8	48
4	P.116 Interneuron-astrocyte interactions in neurovascular coupling. <i>European Neuropsychopharmacology</i> , 2020, 31, S12.	0.3	0
5	Dynamic interactions between GABAergic and astrocytic networks. <i>Neuroscience Letters</i> , 2019, 689, 14-20.	1.0	10
6	Optogenetic Interneuron Stimulation and Calcium Imaging in Astrocytes. <i>Methods in Molecular Biology</i> , 2019, 1925, 173-182.	0.4	2
7	mCerulean3-Based Cameleon Sensor to Explore Mitochondrial Ca <sup>2+</sup> Dynamics In Vivo. <i>iScience</i> , 2019, 16, 340-355.	1.9	15
8	Cellular and molecular mechanisms of new onset seizure generation. <i>Aging Clinical and Experimental Research</i> , 2019, 33, 1713-1716.	1.4	5
9	Interneuron-specific signaling evokes distinctive somatostatin-mediated responses in adult cortical astrocytes. <i>Nature Communications</i> , 2018, 9, 82.	5.8	88
10	mGlu1 Receptors Monopolize the Synaptic Control of Cerebellar Purkinje Cells by Epigenetically Down-Regulating mGlu5 Receptors. <i>Scientific Reports</i> , 2018, 8, 13361.	1.6	6
11	Insights into the release mechanism of astrocytic glutamate evoking in neurons NMDA receptor-mediated slow depolarizing inward currents. <i>Glia</i> , 2018, 66, 2188-2199.	2.5	22
12	Interneuronal Network Activity at the Onset of Seizure-Like Events in Entorhinal Cortex Slices. <i>Journal of Neuroscience</i> , 2017, 37, 10398-10407.	1.7	52
13	New Tools to Study Astrocyte Ca <sup>2+</sup> Signal Dynamics in Brain Networks In Vivo. <i>Frontiers in Cellular Neuroscience</i> , 2017, 11, 134.	1.8	30
14	Synchronous Bioimaging of Intracellular pH and Chloride Based on LSS Fluorescent Protein. <i>ACS Chemical Biology</i> , 2016, 11, 1652-1660.	1.6	28
15	The inhibitory neurotransmitter GABA evokes long-lasting Ca <sup>2+</sup> oscillations in cortical astrocytes. <i>Glia</i> , 2016, 64, 363-373.	2.5	96
16	Crucial role of astrocytes in temporal lobe epilepsy. <i>Neuroscience</i> , 2016, 323, 157-169.	1.1	91
17	Unaltered Network Activity and Interneuronal Firing During Spontaneous Cortical Dynamics In Vivo in a Mouse Model of Severe Myoclonic Epilepsy of Infancy. <i>Cerebral Cortex</i> , 2016, 26, 1778-1794.	1.6	62
18	A brain slice experimental model to study the generation and the propagation of focally-induced epileptiform activity. <i>Journal of Neuroscience Methods</i> , 2016, 260, 125-131.	1.3	20

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19	Parvalbumin-Positive Inhibitory Interneurons Oppose Propagation But Favor Generation of Focal Epileptiform Activity. <i>Journal of Neuroscience</i> , 2015, 35, 9544-9557.	1.7	123
20	Novel astrocyte targets. <i>Neuroscientist</i> , 2015, 21, 62-83.	2.6	46
21	The inflammatory molecules IL-1 $\beta$ and HMGB1 can rapidly enhance focal seizure generation in a brain slice model of temporal lobe epilepsy. <i>Frontiers in Cellular Neuroscience</i> , 2014, 8, 155.	1.8	49
22	Gliotransmitters Travel in Time and Space. <i>Neuron</i> , 2014, 81, 728-739.	3.8	1,010
23	GABAergic interneuron to astrocyte signalling: a neglected form of cell communication in the brain. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130609.	1.8	50
24	New vistas on astroglia in convulsive and non-convulsive epilepsy highlight novel astrocytic targets for treatment. <i>Journal of Physiology</i> , 2013, 591, 775-785.	1.3	24
25	Fast spiking interneuron control of seizure propagation in a cortical slice model of focal epilepsy. <i>Journal of Physiology</i> , 2013, 591, 807-822.	1.3	147
26	Astroglial Excitability and Gliotransmission: An Appraisal of Ca <sup>2+</sup> as a Signalling Route. <i>ASN Neuro</i> , 2012, 4, AN20110061.	1.5	240
27	The Role of Astroglia in the Epileptic Brain. <i>Frontiers in Pharmacology</i> , 2012, 3, 132.	1.6	41
28	Computational model of neuron-astrocyte interactions during focal seizure generation. <i>Frontiers in Computational Neuroscience</i> , 2012, 6, 81.	1.2	38
29	Astrocyte calcium signaling and epilepsy. <i>Glia</i> , 2012, 60, 1227-1233.	2.5	117
30	Ictal but Not Interictal Epileptic Discharges Activate Astrocyte Endfeet and Elicit Cerebral Arteriole Responses. <i>Frontiers in Cellular Neuroscience</i> , 2011, 5, 8.	1.8	20
31	Astrocyte dysfunction in epilepsy. <i>Brain Research Reviews</i> , 2010, 63, 212-221.	9.1	228
32	The contribution of astrocyte signalling to neurovascular coupling. <i>Brain Research Reviews</i> , 2010, 63, 138-148.	9.1	145
33	A new experimental model of focal seizures in the entorhinal cortex. <i>Epilepsia</i> , 2010, 51, 1493-1502.	2.6	26
34	Glutamate-mediated astrocyte-neuron signalling in the rat dorsal horn. <i>Journal of Physiology</i> , 2010, 588, 831-846.	1.3	73
35	Bothrops snake myotoxins induce a large efflux of ATP and potassium with spreading of cell damage and pain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14140-14145.	3.3	66
36	An Excitatory Loop with Astrocytes Contributes to Drive Neurons to Seizure Threshold. <i>PLoS Biology</i> , 2010, 8, e1000352.	2.6	194

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37	Physiological and Pathological Roles of Astrocyte-mediated Neuronal Synchrony. , 2009, , 513-525.		0
38	Presynaptic functional trkB receptors mediate the release of excitatory neurotransmitters from primary afferent terminals in lamina II (substantia gelatinosa) of postnatal rat spinal cord. <i>Developmental Neurobiology</i> , 2008, 68, 457-475.	1.5	56
39	Calpain activity contributes to the control of SNAP-25 levels in neurons. <i>Molecular and Cellular Neurosciences</i> , 2008, 39, 314-323.	1.0	18
40	Enhanced Astrocytic Ca <sup>2+</sup> Signals Contribute to Neuronal Excitotoxicity after Status Epilepticus. <i>Journal of Neuroscience</i> , 2007, 27, 10674-10684.	1.7	248
41	Purinergic Receptors Mediate Two Distinct Glutamate Release Pathways in Hippocampal Astrocytes. <i>Journal of Biological Chemistry</i> , 2006, 281, 4274-4284.	1.6	141
42	Synaptobrevin2-expressing vesicles in rat astrocytes: insights into molecular characterization, dynamics and exocytosis. <i>Journal of Physiology</i> , 2006, 570, 567-582.	1.3	116
43	Glutamate release from astrocytes as a non-synaptic mechanism for neuronal synchronization in the hippocampus. <i>Journal of Physiology (Paris)</i> , 2006, 99, 98-102.	2.1	68
44	Astrocyte Control of Synaptic Transmission and Neurovascular Coupling. <i>Physiological Reviews</i> , 2006, 86, 1009-1031.	13.1	1,145
45	Astrocytic Glutamate Is Not Necessary for the Generation of Epileptiform Neuronal Activity in Hippocampal Slices. <i>Journal of Neuroscience</i> , 2006, 26, 9312-9322.	1.7	153
46	Neurone-to-astrocyte signalling in the brain represents a distinct multifunctional unit. <i>Journal of Physiology</i> , 2004, 559, 3-15.	1.3	221
47	Neuronal Synchrony Mediated by Astrocytic Glutamate through Activation of Extrasynaptic NMDA Receptors. <i>Neuron</i> , 2004, 43, 729-743.	3.8	843
48	Primary cultures from fetal bovine brain. <i>NeuroReport</i> , 2004, 15, 1719-1722.	0.6	15
49	Neurotrophins in spinal cord nociceptive pathways. <i>Progress in Brain Research</i> , 2004, 146, 291-321.	0.9	57
50	Paradoxical Ca <sup>2+</sup> Rises induced by Low External Ca <sup>2+</sup> in Rat Hippocampal Neurones. <i>Journal of Physiology</i> , 2003, 549, 537-552.	1.3	15
51	Glutamate-mediated cytosolic calcium oscillations regulate a pulsatile prostaglandin release from cultured rat astrocytes. <i>Journal of Physiology</i> , 2003, 553, 407-414.	1.3	159
52	Neuron-to-astrocyte signaling is central to the dynamic control of brain microcirculation. <i>Nature Neuroscience</i> , 2003, 6, 43-50.	7.1	1,296
53	Response: Astrocyte-mediated control of cerebral microcirculation. <i>Trends in Neurosciences</i> , 2003, 26, 344-345.	4.2	31
54	Calcium oscillations encoding neuron-to-astrocyte communication. <i>Journal of Physiology (Paris)</i> , 2002, 96, 193-198.	2.1	47

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55	Dynamic Signaling Between Astrocytes and Neurons. <i>Annual Review of Physiology</i> , 2001, 63, 795-813.	5.6	549
56	Cytosolic Calcium Oscillations in Astrocytes May Regulate Exocytotic Release of Glutamate. <i>Journal of Neuroscience</i> , 2001, 21, 477-484.	1.7	264
57	Astrocyte-neurone crosstalk: variants of the same language?. <i>Trends in Pharmacological Sciences</i> , 2000, 21, 373-374.	4.0	11
58	Reciprocal communication systems between astrocytes and neurones. <i>Progress in Neurobiology</i> , 2000, 62, 561-581.	2.8	208
59	Cellular calcium handling in brain slices from calbindin D28k-deficient mice. <i>NeuroReport</i> , 1999, 10, 2367-2372.	0.6	14
60	Prostaglandins stimulate calcium-dependent glutamate release in astrocytes. <i>Nature</i> , 1998, 391, 281-285.	13.7	1,071
61	On the Role of Voltage-Dependent Calcium Channels in Calcium Signaling of Astrocytes In Situ. <i>Journal of Neuroscience</i> , 1998, 18, 4637-4645.	1.7	150
62	Nitric Oxide-Producing Islet Cells Modulate the Release of Sensory Neuropeptides in the Rat Substantia Gelatinosa. <i>Journal of Neuroscience</i> , 1998, 18, 10375-10388.	1.7	58
63	Brain-derived neurotrophic factor and nerve growth factor potentiate excitatory synaptic transmission in the rat visual cortex.. <i>Journal of Physiology</i> , 1997, 498, 153-164.	1.3	200
64	Intracellular Calcium Oscillations in Astrocytes: A Highly Plastic, Bidirectional Form of Communication between Neurons and Astrocytes In Situ. <i>Journal of Neuroscience</i> , 1997, 17, 7817-7830.	1.7	690
65	Long-lasting Changes of Calcium Oscillations in Astrocytes. <i>Journal of Biological Chemistry</i> , 1995, 270, 15203-15210.	1.6	97
66	Developing Rat Retinal Ganglion Cells Express the Functional NGF Receptor p140trkA. <i>Developmental Biology</i> , 1993, 159, 105-113.	0.9	36
67	Effects of nerve growth factor on neuronal plasticity of the kitten visual cortex.. <i>Journal of Physiology</i> , 1993, 464, 343-360.	1.3	102
68	N-methyl-D-aspartate-induced neurotoxicity in the adult rat retina. <i>Visual Neuroscience</i> , 1992, 8, 567-573.	0.5	274
69	Activity-dependent decrease in NMDA receptor responses during development of the visual cortex. <i>Science</i> , 1992, 258, 1007-1011.	6.0	674
70	Distribution of protein gene product 9.5 (PGP 9.5) in the vertebrate retina: Evidence that immunoreactivity is restricted to mammalian horizontal and ganglion cells. <i>Journal of Comparative Neurology</i> , 1992, 322, 35-44.	0.9	46
71	Expression of NGF receptor and NGF receptor mRNA in the developing and adult rat retina. <i>Experimental Neurology</i> , 1991, 111, 302-311.	2.0	103
72	Nerve growth factor prevents the amblyopic effects of monocular deprivation.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1991, 88, 8811-8815.	3.3	107

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73	Schwann cells promote the survival of rat retinal ganglion cells after optic nerve section.. Proceedings of the National Academy of Sciences of the United States of America, 1990, 87, 1855-1859.	3.3	74
74	Effect of NGF on the survival of rat retinal ganglion cells following optic nerve section. Journal of Neuroscience, 1989, 9, 1263-1272.	1.7	238
75	Flash and pattern electroretinograms during and after acute intraocular pressure elevation in cats. Investigative Ophthalmology and Visual Science, 1988, 29, 558-65.	3.3	47
76	Monocular deprivation in kittens differently affects crossed and uncrossed visual pathways. Vision Research, 1986, 26, 875-884.	0.7	18
77	Spatialâ€frequency characteristics of neurones of area 18 in the cat: dependence on the velocity of the visual stimulus.. Journal of Physiology, 1985, 359, 259-268.	1.3	64
78	Can functional reorganization of area 17 following monocular deprivation be modified by GM1 internal ester treatment?. Journal of Neuroscience Research, 1984, 12, 477-483.	1.3	7
79	Pharmacological Aspects of Experimental Peripheral Neuropathy. , 1984, , 259-276.		2
80	Muscle reinnervationâ€”I. Restoration of transmitter release mechanisms. Neuroscience, 1983, 8, 393-401.	1.1	53
81	Muscle reinnervationâ€”II. Sprouting, synapse formation and repression. Neuroscience, 1983, 8, 403-IN1.	1.1	164
82	Electrophysiological and Morphological Correlates of the Re-Innervation of Rat Neuromuscular Junction: Implications on the Role of Membrane Components such as Gangliosides in the Motor Nerve Sprouting. Advances in Behavioral Biology, 1981, , 221-233.	0.2	1
83	Motor nerve sprouting induced by ganglioside treatment. Possible implications for gangliosides on neuronal growth. Brain Research, 1980, 197, 236-241.	1.1	230