

# Tommaso Pizzorusso

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/293719/publications.pdf>

Version: 2024-02-01

111  
papers

11,473  
citations

50244

46  
h-index

30058

103  
g-index

122  
all docs

122  
docs citations

122  
times ranked

10414  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reactivation of Ocular Dominance Plasticity in the Adult Visual Cortex. <i>Science</i> , 2002, 298, 1248-1251.	6.0	1,441
2	BDNF Regulates the Maturation of Inhibition and the Critical Period of Plasticity in Mouse Visual Cortex. <i>Cell</i> , 1999, 98, 739-755.	13.5	1,072
3	Functional postnatal development of the rat primary visual cortex and the role of visual experience: Dark rearing and monocular deprivation. <i>Vision Research</i> , 1994, 34, 709-720.	0.7	599
4	A <i>Cacna1a</i> Knockin Migraine Mouse Model with Increased Susceptibility to Cortical Spreading Depression. <i>Neuron</i> , 2004, 41, 701-710.	3.8	595
5	Critical periods during sensory development. <i>Current Opinion in Neurobiology</i> , 2000, 10, 138-145.	2.0	438
6	Animals lacking link protein have attenuated perineuronal nets and persistent plasticity. <i>Brain</i> , 2010, 133, 2331-2347.	3.7	411
7	Structural and functional recovery from early monocular deprivation in adult rats. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 8517-8522.	3.3	321
8	The roles of perineuronal nets and the perinodal extracellular matrix in neuronal function. <i>Nature Reviews Neuroscience</i> , 2019, 20, 451-465.	4.9	320
9	Reducing Intracortical Inhibition in the Adult Visual Cortex Promotes Ocular Dominance Plasticity. <i>Journal of Neuroscience</i> , 2010, 30, 361-371.	1.7	284
10	Molecular basis of plasticity in the visual cortex. <i>Trends in Neurosciences</i> , 2003, 26, 369-378.	4.2	252
11	Requirement of the nicotinic acetylcholine receptor $\alpha 2$ subunit for the anatomical and functional development of the visual system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 6453-6458.	3.3	225
12	Functional motor recovery from brain ischemic insult by carbon nanotube-mediated siRNA silencing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 10952-10957.	3.3	217
13	High cortical spreading depression susceptibility and migraine-associated symptoms in <i>Ca<sub>v</sub>2.1</i> S218L mice. <i>Annals of Neurology</i> , 2010, 67, 85-98.	2.8	206
14	Reduced AKT/mTOR signaling and protein synthesis dysregulation in a Rett syndrome animal model. <i>Human Molecular Genetics</i> , 2011, 20, 1182-1196.	1.4	202
15	Requirement of ERK Activation for Visual Cortical Plasticity. <i>Science</i> , 2001, 292, 2337-2340.	6.0	192
16	Depletion of Perineuronal Nets Enhances Recognition Memory and Long-Term Depression in the Perirhinal Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 7057-7065.	1.7	190
17	Early Environmental Enrichment Moderates the Behavioral and Synaptic Phenotype of MeCP2 Null Mice. <i>Biological Psychiatry</i> , 2010, 67, 657-665.	0.7	189
18	The visual physiology of the wild type mouse determined with pattern VEPs. <i>Vision Research</i> , 1999, 39, 3071-3081.	0.7	183

#	ARTICLE	IF	CITATIONS
19	Increased Susceptibility to Cortical Spreading Depression in the Mouse Model of Familial Hemiplegic Migraine Type 2. <i>PLoS Genetics</i> , 2011, 7, e1002129.	1.5	179
20	Developmental Downregulation of Histone Posttranslational Modifications Regulates Visual Cortical Plasticity. <i>Neuron</i> , 2007, 53, 747-759.	3.8	178
21	In Vivo Distribution and Toxicity of PAMAM Dendrimers in the Central Nervous System Depend on Their Surface Chemistry. <i>Molecular Pharmaceutics</i> , 2013, 10, 249-260.	2.3	154
22	Mapping Pathological Phenotypes in a Mouse Model of CDKL5 Disorder. <i>PLoS ONE</i> , 2014, 9, e91613.	1.1	145
23	Brain-Derived Neurotrophic Factor Causes cAMP Response Element-Binding Protein Phosphorylation in Absence of Calcium Increases in Slices and Cultured Neurons from Rat Visual Cortex. <i>Journal of Neuroscience</i> , 2000, 20, 2809-2816.	1.7	124
24	Extracellular matrix inhibits structural and functional plasticity of dendritic spines in the adult visual cortex. <i>Nature Communications</i> , 2013, 4, 1484.	5.8	121
25	Experience-dependent expression of miR-132 regulates ocular dominance plasticity. <i>Nature Neuroscience</i> , 2011, 14, 1237-1239.	7.1	117
26	Nerve growth factor and brain-derived neurotrophic factor increase neurotransmitter release in the rat visual cortex. <i>European Journal of Neuroscience</i> , 1998, 10, 2185-2191.	1.2	113
27	Dendritic Spine Instability in a Mouse Model of CDKL5 Disorder Is Rescued by Insulin-like Growth Factor 1. <i>Biological Psychiatry</i> , 2016, 80, 302-311.	0.7	106
28	<i>In vivo</i> degradation of functionalized carbon nanotubes after stereotactic administration in the brain cortex. <i>Nanomedicine</i> , 2012, 7, 1485-1494.	1.7	104
29	Perineuronal net digestion with chondroitinase restores memory in mice with tau pathology. <i>Experimental Neurology</i> , 2015, 265, 48-58.	2.0	104
30	Ras-Guanine Nucleotide-Releasing Factor 1 (Ras-GRF1) Controls Activation of Extracellular Signal-Regulated Kinase (ERK) Signaling in the Striatum and Long-Term Behavioral Responses to Cocaine. <i>Biological Psychiatry</i> , 2009, 66, 758-768.	0.7	96
31	Extracellular Matrix and Visual Cortical Plasticity. <i>Neuron</i> , 2004, 44, 905-908.	3.8	95
32	Pluronic-coated carbon nanotubes do not induce degeneration of cortical neurons in vivo and in vitro. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2009, 5, 96-104.	1.7	91
33	Epigenetic treatments of adult rats promote recovery from visual acuity deficits induced by long-term monocular deprivation. <i>European Journal of Neuroscience</i> , 2010, 31, 2185-2192.	1.2	90
34	Functionalized Carbon Nanotubes in the Brain: Cellular Internalization and Neuroinflammatory Responses. <i>PLoS ONE</i> , 2013, 8, e80964.	1.1	89
35	Patterned Vision Causes CRE-Mediated Gene Expression in the Visual Cortex through PKA and ERK. <i>Journal of Neuroscience</i> , 2003, 23, 7012-7020.	1.7	79
36	Heterozygous Knock-Out Mice for Brain-Derived Neurotrophic Factor Show a Pathway-Specific Impairment of Long-Term Potentiation But Normal Critical Period for Monocular Deprivation. <i>Journal of Neuroscience</i> , 2002, 22, 10072-10077.	1.7	78

#	ARTICLE	IF	CITATIONS
37	Effects of Neurotrophins on Cortical Plasticity: Same or Different?. <i>Journal of Neuroscience</i> , 2000, 20, 2155-2165.	1.7	77
38	The short-time structural plasticity of dendritic spines is altered in a model of Rett syndrome. <i>Scientific Reports</i> , 2011, 1, 45.	1.6	75
39	The biocompatibility of amino functionalized CdSe/ZnS quantum-dot-Doped SiO <sub>2</sub> nanoparticles with primary neural cells and their gene carrying performance. <i>Biomaterials</i> , 2010, 31, 6555-6566.	5.7	73
40	Perilesional Treatment with Chondroitinase ABC and Motor Training Promote Functional Recovery After Stroke in Rats. <i>Cerebral Cortex</i> , 2015, 25, 202-212.	1.6	73
41	MicroRNA212/132 family: Molecular transducer of neuronal function and plasticity. <i>International Journal of Biochemistry and Cell Biology</i> , 2012, 44, 6-10.	1.2	67
42	Dynamic DNA methylation in the brain: a new epigenetic mark for experience-dependent plasticity. <i>Frontiers in Cellular Neuroscience</i> , 2015, 9, 331.	1.8	67
43	Searching for biomarkers of CDKL5 disorder: early-onset visual impairment in CDKL5 mutant mice. <i>Human Molecular Genetics</i> , 2017, 26, 2290-2298.	1.4	55
44	p140Cap Regulates Memory and Synaptic Plasticity through Src-Mediated and Citron-N-Mediated Actin Reorganization. <i>Journal of Neuroscience</i> , 2014, 34, 1542-1553.	1.7	54
45	A sensitive period for environmental regulation of eating behavior and leptin sensitivity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 16673-16678.	3.3	49
46	CDKL5 protein substitution therapy rescues neurological phenotypes of a mouse model of CDKL5 disorder. <i>Human Molecular Genetics</i> , 2018, 27, 1572-1592.	1.4	49
47	p75 Neurotrophin Receptor Activation Regulates the Timing of the Maturation of Cortical Parvalbumin Interneuron Connectivity and Promotes Juvenile-like Plasticity in Adult Visual Cortex. <i>Journal of Neuroscience</i> , 2019, 39, 4489-4510.	1.7	48
48	Visual Stimulation Activates ERK in Synaptic and Somatic Compartments of Rat Cortical Neurons with Parallel Kinetics. <i>PLoS ONE</i> , 2007, 2, e604.	1.1	47
49	Synaptic determinants of Rett syndrome. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 28.	1.3	47
50	Experience-dependent DNA methylation regulates plasticity in the developing visual cortex. <i>Nature Neuroscience</i> , 2015, 18, 956-958.	7.1	46
51	Perineuronal nets control visual input via thalamic recruitment of cortical PV interneurons. <i>ELife</i> , 2018, 7, .	2.8	46
52	ERK Pathway Activation Bidirectionally Affects Visual Recognition Memory and Synaptic Plasticity in the Perirhinal Cortex. <i>Frontiers in Behavioral Neuroscience</i> , 2011, 5, 84.	1.0	43
53	A novel mouse model of creatine transporter deficiency. <i>F1000Research</i> , 2014, 3, 228.	0.8	42
54	Vascular Dysfunction in a Mouse Model of Rett Syndrome and Effects of Curcumin Treatment. <i>PLoS ONE</i> , 2013, 8, e64863.	1.1	41

#	ARTICLE	IF	CITATIONS
55	A mouse model for creatine transporter deficiency reveals early onset cognitive impairment and neuropathology associated with brain aging. <i>Human Molecular Genetics</i> , 2016, 25, 4186-4200.	1.4	39
56	iPSC-derived neurons profiling reveals GABAergic circuit disruption and acetylated $\alpha$ -tubulin defect which improves after iHDAC6 treatment in Rett syndrome. <i>Experimental Cell Research</i> , 2018, 368, 225-235.	1.2	36
57	Chondroitin 6-sulphate is required for neuroplasticity and memory in ageing. <i>Molecular Psychiatry</i> , 2021, 26, 5658-5668.	4.1	36
58	Loss of <i>Mecp2</i> Causes Atypical Synaptic and Molecular Plasticity of Parvalbumin-Expressing Interneurons Reflecting Rett Syndrome-Like Sensorimotor Defects. <i>ENeuro</i> , 2018, 5, ENEURO.0086-18.2018.	0.9	36
59	TrkA activation in the rat visual cortex by antirat trkA IgG prevents the effect of monocular deprivation. <i>European Journal of Neuroscience</i> , 1999, 11, 204-212.	1.2	35
60	Characterization of an alginate-based drug delivery system for neurological applications. <i>Medical Engineering and Physics</i> , 2008, 30, 848-855.	0.8	35
61	System Consolidation of Spatial Memories in Mice: Effects of Enriched Environment. <i>Neural Plasticity</i> , 2013, 2013, 1-12.	1.0	35
62	Reduced Responsiveness to Long-Term Monocular Deprivation of Parvalbumin Neurons Assessed by c-Fos Staining in Rat Visual Cortex. <i>PLoS ONE</i> , 2009, 4, e4342.	1.1	32
63	Perineuronal Nets and CNS Plasticity and Repair. <i>Neural Plasticity</i> , 2016, 2016, 1-2.	1.0	32
64	The antidepressant fluoxetine acts on energy balance and leptin sensitivity via BDNF. <i>Scientific Reports</i> , 2018, 8, 1781.	1.6	32
65	Carbon nanotube-mediated wireless cell permeabilization: drug and gene uptake. <i>Nanomedicine</i> , 2011, 6, 1709-1718.	1.7	31
66	Environment, Leptin Sensitivity, and Hypothalamic Plasticity. <i>Neural Plasticity</i> , 2013, 2013, 1-8.	1.0	31
67	Synaptic plasticity and signaling in rett syndrome. <i>Developmental Neurobiology</i> , 2014, 74, 178-196.	1.5	31
68	Mir-132/212 is required for maturation of binocular matching of orientation preference and depth perception. <i>Nature Communications</i> , 2017, 8, 15488.	5.8	31
69	Site-specific abnormalities in the visual system of a mouse model of CDKL5 deficiency disorder. <i>Human Molecular Genetics</i> , 2019, 28, 2851-2861.	1.4	30
70	Temporal Aspects of Contrast Visual Evoked Potentials in the Pigmented Rat: Effect of Dark Rearing. <i>Vision Research</i> , 1997, 37, 389-395.	0.7	28
71	Inhibition of Semaphorin3A Promotes Ocular Dominance Plasticity in the Adult Rat Visual Cortex. <i>Molecular Neurobiology</i> , 2019, 56, 5987-5997.	1.9	26
72	Novel siRNA delivery strategy: a new "strand" in CNS translational medicine?. <i>Cellular and Molecular Life Sciences</i> , 2014, 71, 1-20.	2.4	24

#	ARTICLE	IF	CITATIONS
73	The gut microbiota of environmentally enriched mice regulates visual cortical plasticity. <i>Cell Reports</i> , 2022, 38, 110212.	2.9	23
74	Involvement of the parietal cortex in perceptual learning (Eureka effect): An interference approach using rTMS. <i>Neuropsychologia</i> , 2010, 48, 1807-1812.	0.7	21
75	Disruption of the prefrontal cortex function by rTMS produces a category-specific enhancement of the reaction times during visual object identification. <i>Neuropsychologia</i> , 2008, 46, 2725-2731.	0.7	20
76	Rodent Models of Developmental Ischemic Stroke for Translational Research: Strengths and Weaknesses. <i>Neural Plasticity</i> , 2019, 2019, 1-16.	1.0	20
77	Plasticity in the developing visual system. <i>Current Opinion in Neurology</i> , 1996, 9, 122-125.	1.8	19
78	In Vitro and In Vivo Biocompatibility Testing of Functionalized Carbon Nanotubes. <i>Methods in Molecular Biology</i> , 2010, 625, 67-83.	0.4	19
79	Inflammatory Lung Disease in Rett Syndrome. <i>Mediators of Inflammation</i> , 2014, 2014, 1-15.	1.4	19
80	Vision in mice with neuronal redundancy due to inhibition of developmental cell death. <i>Visual Neuroscience</i> , 1999, 16, 721-726.	0.5	18
81	Role of neurotrophins in the development and plasticity of the visual system: experiments on dark rearing. <i>International Journal of Psychophysiology</i> , 2000, 35, 189-196.	0.5	18
82	Visual experience and plasticity of the visual cortex: a role for epigenetic mechanisms. <i>Frontiers in Bioscience - Landmark</i> , 2008, 13, 3000.	3.0	18
83	Interplay between Metabolism, Nutrition and Epigenetics in Shaping Brain DNA Methylation, Neural Function and Behavior. <i>Genes</i> , 2020, 11, 742.	1.0	18
84	Age-Related Cognitive and Motor Decline in a Mouse Model of CDKL5 Deficiency Disorder is Associated with Increased Neuronal Senescence and Death. , 2021, 12, 764.		16
85	A Richness that Cures. <i>Neuron</i> , 2007, 54, 508-510.	3.8	15
86	Molecular Mechanisms at the Basis of Plasticity in the Developing Visual Cortex: Epigenetic Processes and Gene Programs. <i>Journal of Experimental Neuroscience</i> , 2013, 7, JEN.S12958.	2.3	15
87	A Kinase with a Vision. , 2006, 557, 122-132.		15
88	Mirâ€29 coordinates ageâ€dependent plasticity brakes in the adult visual cortex. <i>EMBO Reports</i> , 2020, 21, e50431.	2.0	15
89	Transplant of Schwann Cells Allows Normal Development of the Visual Cortex of Dark-reared Rats. <i>European Journal of Neuroscience</i> , 1997, 9, 102-112.	1.2	14
90	Erasing Fear Memories. <i>Science</i> , 2009, 325, 1214-1215.	6.0	14

#	ARTICLE	IF	CITATIONS
91	A Nervous System-Specific Model of Creatine Transporter Deficiency Recapitulates the Cognitive Endophenotype of the Disease: a Longitudinal Study. <i>Scientific Reports</i> , 2019, 9, 62.	1.6	14
92	Novel translational phenotypes and biomarkers for creatine transporter deficiency. <i>Brain Communications</i> , 2020, 2, fcaa089.	1.5	14
93	Cyclocreatine treatment ameliorates the cognitive, autistic and epileptic phenotype in a mouse model of Creatine Transporter Deficiency. <i>Scientific Reports</i> , 2020, 10, 18361.	1.6	14
94	Electrophysiology of the postreceptoral visual pathway in mice. <i>Documenta Ophthalmologica</i> , 2002, 104, 69-82.	1.0	13
95	Fluoxetine Modulates the Activity of Hypothalamic POMC Neurons via mTOR Signaling. <i>Molecular Neurobiology</i> , 2018, 55, 9267-9279.	1.9	13
96	Cyclin-dependent-like kinase 5 is required for pain signaling in human sensory neurons and mouse models. <i>Science Translational Medicine</i> , 2020, 12, .	5.8	13
97	Adipocytes differentiation in the presence of Pluronic F127-coated carbon nanotubes. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2009, 5, 378-381.	1.7	11
98	Focal Stroke in the Developing Rat Motor Cortex Induces Age- and Experience-Dependent Maladaptive Plasticity of Corticospinal System. <i>Frontiers in Neural Circuits</i> , 2017, 11, 47.	1.4	11
99	MEYE: Web App for Translational and Real-Time Pupillometry. <i>ENeuro</i> , 2021, 8, ENEURO.0122-21.2021.	0.9	11
100	Running towards amblyopia recovery. <i>Scientific Reports</i> , 2020, 10, 12661.	1.6	10
101	Brain mitochondrial proteome alteration driven by creatine deficiency suggests novel therapeutic venues for creatine deficiency syndromes. <i>Neuroscience</i> , 2019, 409, 276-289.	1.1	8
102	The Role of Preclinical Models in Creatine Transporter Deficiency: Neurobiological Mechanisms, Biomarkers and Therapeutic Development. <i>Genes</i> , 2021, 12, 1123.	1.0	8
103	GABAergic Circuit Development and Its Implication for CNS Disorders. <i>Neural Plasticity</i> , 2011, 2011, 1-2.	1.0	6
104	3D Printable Device for Automated Operant Conditioning in the Mouse. <i>ENeuro</i> , 2020, 7, ENEURO.0502-19.2020.	0.9	6
105	Multiwalled Carbon Nanotube Antennas Induce Effective Plasmid DNA Transfection of Bacterial Cells. <i>Journal of Nanoneuroscience</i> , 2012, 2, 56-62.	0.5	5
106	Learning to count biological structures with raters' uncertainty. <i>Medical Image Analysis</i> , 2022, 80, 102500.	7.0	5
107	Developmental Downregulation of Histone Posttranslational Modifications Regulates Visual Cortical Plasticity. <i>Neuron</i> , 2007, 54, 177.	3.8	3
108	Editorial for "Regulatory RNAs in the nervous system". <i>Frontiers in Cellular Neuroscience</i> , 2015, 9, 38.	1.8	1

#	ARTICLE	IF	CITATIONS
109	miRNA in Neuronal Networks Maturation and Plasticity. , 2017, , 211-224.		1
110	Mirâ€29 coordinates ageâ€dependent plasticity brakes in the adult visual cortex. EMBO Reports, 2021, 22, .	2.0	1
111	A novel mouse model of creatine transporter deficiency. F1000Research, 0, 3, 228.	0.8	0