

Dirk Feldmeyer

List of Publications by Year in descending order

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82
papers

10,523
citations

50276

46
h-index

74163

75
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88
all docs

88
docs citations

88
times ranked

8983
citing authors

#	ARTICLE	IF	CITATIONS
1	Petilla terminology: nomenclature of features of GABAergic interneurons of the cerebral cortex. <i>Nature Reviews Neuroscience</i> , 2008, 9, 557-568.	10.2	1,314
2	Point mutation in an AMPA receptor gene rescues lethality in mice deficient in the RNA-editing enzyme ADAR2. <i>Nature</i> , 2000, 406, 78-81.	27.8	884
3	New insights into the classification and nomenclature of cortical GABAergic interneurons. <i>Nature Reviews Neuroscience</i> , 2013, 14, 202-216.	10.2	707
4	Early-Onset Epilepsy and Postnatal Lethality Associated with an Editing-Deficient <i>GluR-B</i> Allele in Mice. <i>Science</i> , 1995, 270, 1677-1680.	12.6	553
5	Synaptic connections between layer 4 spiny neuron-layer 2/3 pyramidal cell pairs in juvenile rat barrel cortex: physiology and anatomy of interlaminar signalling within a cortical column. <i>Journal of Physiology</i> , 2002, 538, 803-822.	2.9	428
6	Reliable synaptic connections between pairs of excitatory layer 4 neurones within a single "barrel" of developing rat somatosensory cortex. <i>Journal of Physiology</i> , 1999, 521, 169-190.	2.9	394
7	Coincidence detection and changes of synaptic efficacy in spiny stellate neurons in rat barrel cortex. <i>Nature Neuroscience</i> , 1999, 2, 1098-1105.	14.8	361
8	NMDA-receptor channel diversity in the developing cerebellum. <i>Nature</i> , 1994, 368, 335-339.	27.8	310
9	Barrel cortex function. <i>Progress in Neurobiology</i> , 2013, 103, 3-27.	5.7	304
10	Efficacy and connectivity of intracolumnar pairs of layer 2/3 pyramidal cells in the barrel cortex of juvenile rats. <i>Journal of Physiology</i> , 2006, 575, 583-602.	2.9	275
11	Columnar Organization of Dendrites and Axons of Single and Synaptically Coupled Excitatory Spiny Neurons in Layer 4 of the Rat Barrel Cortex. <i>Journal of Neuroscience</i> , 2000, 20, 5300-5311.	3.6	264
12	Connexin expression in electrically coupled postnatal rat brain neurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2000, 97, 10260-10265.	7.1	252
13	Excitatory neuronal connectivity in the barrel cortex. <i>Frontiers in Neuroanatomy</i> , 2012, 6, 24.	1.7	239
14	Neuronal Basic Helix-Loop-Helix Proteins (NEX and BETA2/Neuro D) Regulate Terminal Granule Cell Differentiation in the Hippocampus. <i>Journal of Neuroscience</i> , 2000, 20, 3714-3724.	3.6	232
15	High-Probability Uniquantal Transmission at Excitatory Synapses in Barrel Cortex. <i>Science</i> , 2003, 302, 1981-1984.	12.6	219
16	Neurological dysfunctions in mice expressing different levels of the Q/R site "unedited AMPAR subunit GluR-B. <i>Nature Neuroscience</i> , 1999, 2, 57-64.	14.8	216
17	Morphometric Analysis of the Columnar Innervation Domain of Neurons Connecting Layer 4 and Layer 2/3 of Juvenile Rat Barrel Cortex. <i>Cerebral Cortex</i> , 2003, 13, 1051-1063.	2.9	200
18	Excitatory signal flow and connectivity in a cortical column: focus on barrel cortex. <i>Brain Structure and Function</i> , 2007, 212, 3-17.	2.3	199

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19	A community-based transcriptomics classification and nomenclature of neocortical cell types. <i>Nature Neuroscience</i> , 2020, 23, 1456-1468.	14.8	183
20	Functional Correlation of NMDA Receptor μ Subunits Expression with the Properties of Single-Channel and Synaptic Currents in the Developing Cerebellum. <i>Journal of Neuroscience</i> , 1996, 16, 4376-4382.	3.6	167
21	Effect of RNA editing and subunit coassembly single-channel properties of recombinant kainate receptors.. <i>Journal of Physiology</i> , 1996, 492, 129-142.	2.9	166
22	Morphological and Physiological Characterization of Pyramidal Neuron Subtypes in Rat Medial Prefrontal Cortex. <i>Cerebral Cortex</i> , 2015, 25, 788-805.	2.9	142
23	Identification of a native low-conductance NMDA channel with reduced sensitivity to Mg ²⁺ in rat central neurones.. <i>Journal of Physiology</i> , 1996, 494, 479-492.	2.9	139
24	Monosynaptic Connections between Pairs of Spiny Stellate Cells in Layer 4 and Pyramidal Cells in Layer 5A Indicate That Lemniscal and Paralemniscal Afferent Pathways Converge in the Infragranular Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2005, 25, 3423-3431.	3.6	127
25	Monosynaptic Connections between Pairs of L5A Pyramidal Neurons in Columns of Juvenile Rat Somatosensory Cortex. <i>Cerebral Cortex</i> , 2008, 18, 397-406.	2.9	113
26	Layer- and Cell Type-Specific Modulation of Excitatory Neuronal Activity in the Neocortex. <i>Frontiers in Neuroanatomy</i> , 2018, 12, 1.	1.7	108
27	Efficient Recruitment of Layer 2/3 Interneurons by Layer 4 Input in Single Columns of Rat Somatosensory Cortex. <i>Journal of Neuroscience</i> , 2008, 28, 8273-8284.	3.6	107
28	Inhibitory Interneurons and their Circuit Motifs in the Many Layers of the Barrel Cortex. <i>Neuroscience</i> , 2018, 368, 132-151.	2.3	104
29	Cholinergic filtering in the recurrent excitatory microcircuit of cortical layer 4. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 11753-11758.	7.1	96
30	Neuronal Correlates of Local, Lateral, and Translaminar Inhibition with Reference to Cortical Columns. <i>Cerebral Cortex</i> , 2009, 19, 926-937.	2.9	93
31	Synaptic efficacy and reliability of excitatory connections between the principal neurones of the input (layer 4) and output layer (layer 5) of the neocortex. <i>Journal of Physiology</i> , 2000, 525, 31-39.	2.9	92
32	Axonal Projection, Input and Output Synapses, and Synaptic Physiology of Cajal-Retzius Cells in the Developing Rat Neocortex. <i>Journal of Neuroscience</i> , 2002, 22, 6908-6919.	3.6	91
33	Modeling a layer 4-to-layer 2/3 module of a single column in rat neocortex: Interweaving <i>in vitro</i> and <i>in vivo</i> experimental observations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 16353-16358.	7.1	90
34	Improved biocytin labeling and neuronal 3D reconstruction. <i>Nature Protocols</i> , 2012, 7, 394-407.	12.0	87
35	Reconstruction of an average cortical column in silico. <i>Brain Research Reviews</i> , 2007, 55, 193-203.	9.0	84
36	Postnatal development of synaptic transmission in local networks of L5A pyramidal neurons in rat somatosensory cortex. <i>Journal of Physiology</i> , 2007, 585, 103-116.	2.9	80

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37	NMDA receptor diversity in the cerebellum: identification of subunits contributing to functional receptors. <i>Neuropharmacology</i> , 1998, 37, 1369-1380.	4.1	77
38	Morphology and Physiology of Excitatory Neurons in Layer 6b of the Somatosensory Rat Barrel Cortex. <i>Cerebral Cortex</i> , 2013, 23, 2803-2817.	2.9	71
39	A Barrel-Related Interneuron in Layer 4 of Rat Somatosensory Cortex with a High Intrabarrel Connectivity. <i>Cerebral Cortex</i> , 2015, 25, 713-725.	2.9	66
40	Functional consequences of changes in NMDA receptor subunit expression during development. <i>Journal of Neurocytology</i> , 1996, 25, 857-867.	1.5	65
41	L2/3 Interneuron Groups Defined by Multiparameter Analysis of Axonal Projection, Dendritic Geometry, and Electrical Excitability. <i>Cerebral Cortex</i> , 2009, 19, 951-962.	2.9	60
42	The Relation between Dendritic Geometry, Electrical Excitability, and Axonal Projections of L2/3 Interneurons in Rat Barrel Cortex. <i>Cerebral Cortex</i> , 2009, 19, 938-950.	2.9	57
43	Developmental alterations in the functional properties of excitatory neocortical synapses. <i>Journal of Physiology</i> , 2009, 587, 1889-1896.	2.9	56
44	Neocortical Layer 6B as a Remnant of the Subplate - A Morphological Comparison. <i>Cerebral Cortex</i> , 2017, 27, bhv279.	2.9	56
45	Cell Type-Specific Effects of Adenosine on Cortical Neurons. <i>Cerebral Cortex</i> , 2015, 25, 772-787.	2.9	54
46	Sociability Deficits and Altered Amygdala Circuits in Mice Lacking Pcdh10, an Autism Associated Gene. <i>Biological Psychiatry</i> , 2017, 81, 193-202.	1.3	51
47	Fast gating kinetics of the slow Ca ²⁺ current in cut skeletal muscle fibres of the frog.. <i>Journal of Physiology</i> , 1990, 425, 347-367.	2.9	50
48	Structural determinants underlying the high efficacy of synaptic transmission and plasticity at synaptic boutons in layer 4 of the adult rat "barrel cortex"™. <i>Brain Structure and Function</i> , 2015, 220, 3185-3209.	2.3	39
49	Adenosine Differentially Modulates Synaptic Transmission of Excitatory and Inhibitory Microcircuits in Layer 4 of Rat Barrel Cortex. <i>Cerebral Cortex</i> , 2017, 27, 4411-4422.	2.9	39
50	Morphological and Functional Characterization of Non-fast-Spiking GABAergic Interneurons in Layer 4 Microcircuitry of Rat Barrel Cortex. <i>Cerebral Cortex</i> , 2018, 28, 1439-1457.	2.9	29
51	Effects of gallopamil on calcium release and intramembrane charge movements in frog skeletal muscle fibres.. <i>Journal of Physiology</i> , 1990, 421, 343-362.	2.9	27
52	Dendritic Target Region-Specific Formation of Synapses Between Excitatory Layer 4 Neurons and Layer 6 Pyramidal Cells. <i>Cerebral Cortex</i> , 2016, 26, 1569-1579.	2.9	25
53	Modulation of calcium current gating in frog skeletal muscle by conditioning depolarization.. <i>Journal of Physiology</i> , 1992, 457, 639-653.	2.9	24
54	Comment on "Principles of connectivity among morphologically defined cell types in adult neocortex". <i>Science</i> , 2016, 353, 1108-1108.	12.6	24

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55	Contribution of Intracolumnar Layer 2/3-to-Layer 2/3 Excitatory Connections in Shaping the Response to Whisker Deflection in Rat Barrel Cortex. <i>Cerebral Cortex</i> , 2015, 25, 849-858.	2.9	23
56	A possible role of sarcoplasmic Ca ²⁺ release in modulating the slow Ca ²⁺ current of skeletal muscle. <i>Pflugers Archiv European Journal of Physiology</i> , 1993, 425, 54-61.	2.8	21
57	Neurotransmitters: Elusive glutamate receptors. <i>Current Biology</i> , 1994, 4, 82-84.	3.9	19
58	Electrophysiological and Morphological Characterization of Neuronal Microcircuits in Acute Brain Slices Using Paired Patch-Clamp Recordings. <i>Journal of Visualized Experiments</i> , 2015, , 52358.	0.3	19
59	Muscarinic and Nicotinic Modulation of Neocortical Layer 6A Synaptic Microcircuits Is Cooperative and Cell-Specific. <i>Cerebral Cortex</i> , 2020, 30, 3528-3542.	2.9	17
60	Calcium current reactivation after flash photolysis of nifedipine in skeletal muscle fibres of the frog. <i>Journal of Physiology</i> , 1995, 487, 51-56.	2.9	14
61	Sensory encoding in Neuregulin 1 mutants. <i>Brain Structure and Function</i> , 2016, 221, 1067-1081.	2.3	12
62	Layer-Specific Inhibitory Microcircuits of Layer 6 Interneurons in Rat Prefrontal Cortex. <i>Cerebral Cortex</i> , 2021, 31, 32-47.	2.9	12
63	Cholinergic and Adenosinergic Modulation of Synaptic Release. <i>Neuroscience</i> , 2021, 456, 114-130.	2.3	10
64	Axons Predict Neuronal Connectivity Within and Between Cortical Columns and Serve as Primary Classifiers of Interneurons in a Cortical Column. , 2010, , 141-155.		10
65	Effects of guanidinium on EC coupling and tension generation in frog skeletal muscle. <i>Journal of Muscle Research and Cell Motility</i> , 1988, 9, 541-551.	2.0	9
66	Unveiling the Synaptic Function and Structure Using Paired Recordings From Synaptically Coupled Neurons. <i>Frontiers in Synaptic Neuroscience</i> , 2020, 12, 5.	2.5	9
67	Synaptic Microcircuits in the Barrel Cortex. , 2015, , 59-108.		7
68	Cell-Type Specific Neuromodulation of Excitatory and Inhibitory Neurons via Muscarinic Acetylcholine Receptors in Layer 4 of Rat Barrel Cortex. <i>Frontiers in Neural Circuits</i> , 2022, 16, 843025.	2.8	7
69	The Axon of Excitatory Neurons in the Neocortex: Projection Patterns and Target Specificity. , 2010, , 157-178.		5
70	OUP accepted manuscript. <i>Cerebral Cortex</i> , 2021, , .	2.9	5
71	Morpho-Functional Mapping of Cortical Networks in Brain Slice Preparations Using Paired Electrophysiological Recordings. <i>NeuroMethods</i> , 2011, , 405-431.	0.3	4
72	Altered resonance properties of somatosensory responses in mice deficient for the schizophrenia risk gene Neuregulin 1. <i>Brain Structure and Function</i> , 2016, 221, 4383-4398.	2.3	4

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73	Paired Recordings from Synaptically Coupled Neurones in Acute Neocortical Slices. <i>NeuroMethods</i> , 2016, , 171-191.	0.3	4
74	Signals far and away. <i>Nature</i> , 2010, 464, 1134-1136.	27.8	2
75	Synaptic connections between layer 4 spiny neurone- layer 2/3 pyramidal cell pairs in juvenile rat barrel cortex: physiology and anatomy of interlaminar signalling within a cortical column. , 2002, 538, 803.		2
76	Effects of lanthanum on contractile inactivation and D600-induced paralysis in twitch muscle fibres of the frog. <i>Pflugers Archiv European Journal of Physiology</i> , 1989, 414, 373-375.	2.8	1
77	Mechanisms of neocortical development. <i>Journal of Physiology</i> , 2009, 587, 1871-1872.	2.9	1
78	Editorial: Methods for Synaptic Interrogation. <i>Frontiers in Synaptic Neuroscience</i> , 2020, 12, 23.	2.5	1
79	Morphologie und synaptische Interaktion von Neuronen einer kortikalen Kolumne. <i>E-Neuroforum</i> , 2004, 10, 220-228.	0.1	0
80	Electrical Activity in Neurons. , 2013, , 113-143.		0
81	Neuronale Schaltkreise als kleinste Einheit kortikaler Netzwerke – Struktur und Funktion. , 2012, , 15-20.		0
82	S1 Microcircuits. , 2016, , 547-563.		0