Wolfgang RÃ¶ssler

List of Publications by Year
in descending order

130 papers	5,548 citations	76326 40 h-index	98798 67 g-index
140 all docs	140 docs citations	140 times ranked	2811 citing authors

#	Article	IF	Citations
1	Anesthesia disrupts distance, but not direction, of path integration memory. Current Biology, 2022, 32, 445-452.e4.	3.9	12
2	Flight-induced compass representation in the monarch butterfly heading network. Current Biology, 2022, 32, 338-349.e5.	3.9	42
3	Magnetosensation during re-learning walks in desert ants (Cataglyphis nodus). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2022, 208, 125-133.	1.6	8
4	Rotation of skylight polarization during learning walks is necessary to trigger neuronal plasticity in<i>Cataglyphis</i>ants. Proceedings of the Royal Society B: Biological Sciences, 2022, 289, 20212499.	2.6	5
5	Itâ€™s all about seeing and hearing: the Editorsâ€™ and Readersâ€™ Choice Awards 2022. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2022, , 1.	1.6	1
6	Editorial: Structural Plasticity of Invertebrate Neural Systems. Frontiers in Physiology, 2022, 13, 874999.	2.8	0
7	Categorizing Visual Information in Subpopulations of Honeybee Mushroom Body Output Neurons. Frontiers in Physiology, 2022, 13, 866807.	2.8	2
8	Government funding of research beyond biomedicine: challenges and opportunities for neuroethology. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2022, 208, 443-456.	1.6	2
9	Johnston's organ and its central projections in <i>Cataglyphis</i> desert ants. Journal of Comparative Neurology, 2021, 529, 2138-2155.	1.6	17
10	Plasticity and modulation of olfactory circuits in insects. Cell and Tissue Research, 2021, 383, 149-164.	2.9	29
11	Cover Image, Volume 529, Issue 8. Journal of Comparative Neurology, 2021, 529, C4.	1.6	0
12	Transcriptomic, peptidomic, and mass spectrometry imaging analysis of the brain in the ant <i>Cataglyphis nodus</i>. Journal of Neurochemistry, 2021, 158, 391-412.	3.9	21
13	Novel structure in the nuclei of honey bee brain neurons revealed by immunostaining. Scientific Reports, 2021, 11, 6852.	3.3	4
14	Neuropeptides as potential modulators of behavioral transitions in the ant <scp><i>Cataglyphis nodus</i></scp>. Journal of Comparative Neurology, 2021, 529, 3155-3170.	1.6	12
15	Sexâ€specific and casteâ€specific brain adaptations related to spatial orientation in <i>Cataglyphis</i> ants. Journal of Comparative Neurology, 2021, 529, 3882-3892.	1.6	3
16	Magnetoreception in Hymenoptera: importance for navigation. Animal Cognition, 2020, 23, 1051-1061.	1.8	26
17	Analysis of Synaptic Microcircuits in the Mushroom Bodies of the Honeybee. Insects, 2020, 11, 43.	2.2	39
18	The brain of <scp><i>Cataglyphis</i></scp> ants: Neuronal organization and visual projections. Journal of Comparative Neurology, 2020, 528, 3479-3506.	1.6	27

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19	Neuroanatomical correlates of mobility: Sensory brain centres are bigger in winged than in wingless parthenogenetic pea aphid females. Arthropod Structure and Development, 2019, 52, 100883.	1.4	4
20	UV-light perception is modulated by the odour element of an olfactory-visual compound in restrained honeybees. Journal of Experimental Biology, 2019, 222, .	1.7	7
21	Learning to navigateÂâ€“ how desert ants calibrate their compass systems. Neuroforum, 2019, 25, 109-120.	0.3	22
22	Distributed plasticity in ant visual pathways following colour learning. Proceedings of the Royal Society B: Biological Sciences, 2019, 286, 20182813.	2.6	19
23	Neuronal Plasticity in the Mushroomâ€Body Calyx of Bumble Bee Workers During Early Adult Development. Developmental Neurobiology, 2019, 79, 287-302.	3.0	14
24	Immediate early genes in social insects: a tool to identify brain regions involved in complex behaviors and molecular processes underlying neuroplasticity. Cellular and Molecular Life Sciences, 2019, 76, 637-651.	5.4	29
25	Multimodal integration and stimulus categorization in putative mushroom body output neurons of the honeybee. Royal Society Open Science, 2018, 5, 171785.	2.4	58
26	The Geomagnetic Field Is a Compass Cue in Cataglyphis Ant Navigation. Current Biology, 2018, 28, 1440-1444.e2.	3.9	86
27	Early foraging life: spatial and temporal aspects of landmark learning in the ant Cataglyphis noda. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2018, 204, 579-592.	1.6	41
28	In-situ recording of ionic currents in projection neurons and Kenyon cells in the olfactory pathway of the honeybee. PLoS ONE, 2018, 13, e0191425.	2.5	17
29	Separation of different pollen types by chemotactile sensing in <i>Bombus terrestris</i>.. Journal of Experimental Biology, 2017, 220, 1435-1442.	1.7	4
30	Neuronal distribution of tyramine and the tyramine receptor AmTAR1 in the honeybee brain. Journal of Comparative Neurology, 2017, 525, 2615-2631.	1.6	20
31	3D subcellular localization with superresolution array tomography on ultrathin sections of various species. Methods in Cell Biology, 2017, 140, 21-47.	1.1	27
32	Innate colour preference, individual learning and memory retention in the ant Camponotus blandus. Journal of Experimental Biology, 2017, 220, 3315-3326.	1.7	30
33	Pitfalls of using confocal-microscopy based automated quantification of synaptic complexes in honeybee mushroom bodies (response to Peng and Yang 2016). Scientific Reports, 2017, 7, 9786.	3.3	10
34	Neuronal distribution of tyramine and the tyramine receptor AmTAR1 in the honeybee brain. Journal of Comparative Neurology, 2017, 525, spc1-spc1.	1.6	0
35	Species-specific differences in the fine structure of learning walk elements in<i>Cataglyphis</i>ants. Journal of Experimental Biology, 2017, 220, 2426-2435.	1.7	66
36	Neuropeptides in the desert ant <i>Cataglyphis fortis</i>: Mass spectrometric analysis, localization, and ageâ€related changes. Journal of Comparative Neurology, 2017, 525, 901-918.	1.6	15

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37	Impact of light and alarm pheromone on immediate early gene expression in the European honeybee, <scp><i>Apis mellifera</i></scp>. Entomological Science, 2017, 20, 122-126.	0.6	18
38	The Role of Celestial Compass Information in Cataglyphis Ants during Learning Walks and for Neuroplasticity in the Central Complex and Mushroom Bodies. Frontiers in Behavioral Neuroscience, 2017, 11, 226.	2.0	47
39	Daily Thermal Fluctuations Experienced by Pupae via Rhythmic Nursing Behavior Increase Numbers of Mushroom Body Microglomeruli in the Adult Ant Brain. Frontiers in Behavioral Neuroscience, 2016, 10, 73.	2.0	14
40	Microglomerular Synaptic Complexes in the Sky-Compass Network of the Honeybee Connect Parallel Pathways from the Anterior Optic Tubercle to the Central Complex. Frontiers in Behavioral Neuroscience, 2016, 10, 186.	2.0	49
41	Experienceâ€related reorganization of giant synapses in the lateral complex: Potential role in plasticity of the skyâ€compass pathway in the desert ant <i>Cataglyphis fortis</i>. Developmental Neurobiology, 2016, 76, 390-404.	3.0	47
42	Ageâ€dependent transcriptional and epigenomic responses to light exposure in the honey bee brain. FEBS Open Bio, 2016, 6, 622-639.	2.3	17
43	Ontogeny of learning walks and the acquisition of landmark information in desert ants,<i>Cataglyphis fortis</i>. Journal of Experimental Biology, 2016, 219, 3137-3145.	1.7	85
44	Ageâ€related and lightâ€induced plasticity in opsin gene expression and in primary and secondary visual centers of the nectarâ€feeding ant <i>Camponotus rufipes</i>. Developmental Neurobiology, 2016, 76, 1041-1057.	3.0	49
45	Does Fine Color Discrimination Learning in Free-Flying Honeybees Change Mushroom-Body Calyx Neuroarchitecture?. PLoS ONE, 2016, 11, e0164386.	2.5	20
46	Neuronal plasticity in the mushroom body calyx during adult maturation in the honeybee and possible pheromonal influences. Developmental Neurobiology, 2015, 75, 1368-1384.	3.0	43
47	Extracting the Behaviorally Relevant Stimulus: Unique Neural Representation of Farnesol, a Component of the Recruitment Pheromone of Bombus terrestris. PLoS ONE, 2015, 10, e0137413.	2.5	10
48	Long-term avoidance memory formation is associated with a transient increase in mushroom body synaptic complexes in leaf-cutting ants. Frontiers in Behavioral Neuroscience, 2015, 9, 84.	2.0	63
49	It takes twoâ€"coincidence coding within the dual olfactory pathway of the honeybee. Frontiers in Physiology, 2015, 6, 208.	2.8	19
50	Neuropeptidomics of the Carpenter Ant Camponotus floridanus. Journal of Proteome Research, 2015, 14, 1504-1514.	3.7	47
51	CaMKII knockdown affects both early and late phases of olfactory long-term memory in the honeybee. Journal of Experimental Biology, 2015, 218, 3788-96.	1.7	24
52	Royal jelly-like protein localization reveals differences in hypopharyngeal glands buildup and conserved expression pattern in brains of bumblebees and honeybees. Biology Open, 2014, 3, 281-288.	1.2	20
53	Density of mushroom body synaptic complexes limits intraspecies brain miniaturization in highly polymorphic leaf-cutting ant workers. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20140432.	2.6	37
54	Elemental and non-elemental olfactory learning using PER conditioning in the bumblebee, Bombus terrestris. Apidologie, 2014, 45, 106-115.	2.0	37

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55	A Systematic Nomenclature for the Insect Brain. Neuron, 2014, 81, 755-765.	8.1	564
56	Olfactory subsystems in the honeybee: sensory supply and sex specificity. Cell and Tissue Research, 2014, 357, 583-595.	2.9	29
57	Light exposure leads to reorganization of microglomeruli in the mushroom bodies and influences juvenile hormone levels in the honeybee. Developmental Neurobiology, 2014, 74, 1141-1153.	3.0	47
58	Simultaneous Long-term Recordings at Two Neuronal Processing Stages in Behaving Honeybees. Journal of Visualized Experiments, 2014, , .	0.3	8
59	Ant-App-DB: a smart solution for monitoring arthropods activities, experimental data management and solar calculations without GPS in behavioral field studies. F1000Research, 2014, 3, 311.	1.6	3
60	Parallel Processing via a Dual Olfactory Pathway in the Honeybee. Journal of Neuroscience, 2013, 33, 2443-2456.	3.6	77
61	Parallel processing in the honeybee olfactory pathway: structure, function, and evolution. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 981-996.	1.6	37
62	Group recruitment in a thermophilic desert ant, Ocymyrmex robustior. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 711-722.	1.6	6
63	Insect chemoreception: a tribute to John G. Hildebrand. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 875-877.	1.6	1
64	Bounded Plasticity in the Desert Antâ€™s Navigational Tool Kit. Handbook of Behavioral Neuroscience, 2013, , 514-529.	0.7	11
65	Reize und Reiztransport. Springer-Lehrbuch, 2013, , 459-470.	0.0	0
66	Chemische Sinne. Springer-Lehrbuch, 2013, , 537-570.	0.0	0
67	Lernen und GedÃchtnis. Springer-Lehrbuch, 2013, , 1077-1125.	0.0	0
68	HÃ¶ren. Springer-Lehrbuch, 2013, , 659-746.	0.0	0
69	Ageâ€related plasticity in the synaptic ultrastructure of neurons in the mushroom body calyx of the adult honeybee <i>Apis mellifera</i>. Journal of Comparative Neurology, 2012, 520, 3509-3527.	1.6	93
70	Plasticity of Synaptic Microcircuits in the Mushroom-Body Calyx of the Honey Bee. , 2012, , 141-153.		14
71	Molecular and biochemical characterization of the major royal jelly protein in bumblebees suggest a non-nutritive function. Insect Biochemistry and Molecular Biology, 2012, 42, 647-654.	2.7	22
72	Visual experience affects both behavioral and neuronal aspects in the individual life history of the desert ant <i>Cataglyphis fortis</i>. Developmental Neurobiology, 2012, 72, 729-742.	3.0	66

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73	Sensory reception of the primer pheromone ethyl oleate. Die Naturwissenschaften, 2012, 99, 421-425.	1.6	8
74	Serotonin depresses feeding behaviour in ants. Journal of Insect Physiology, 2012, 58, 7-17.	2.0	49
75	Dual olfactory pathway in Hymenoptera: Evolutionary insights from comparative studies. Arthropod Structure and Development, 2011, 40, 349-357.	1.4	35
76	Comparison of microglomerular structures in the mushroom body calyx of neopteran insects. Arthropod Structure and Development, 2011, 40, 358-367.	1.4	81
77	CaMKII is differentially localized in synaptic regions of kenyon cells within the mushroom bodies of the honeybee brain. Journal of Comparative Neurology, 2011, 519, 3700-3712.	1.6	37
78	Antennal-Lobe Organization in Desert Ants of the Genus Cataglyphis. Brain, Behavior and Evolution, 2011, 77, 136-146.	1.7	33
79	Friends and Foes from an Ant Brain's Point of View â€“ Neuronal Correlates of Colony Odors in a Social Insect. PLoS ONE, 2011, 6, e21383.	2.5	49
80	Phenotypic plasticity in number of glomeruli and sensory innervation of the antennal lobe in leafâ€cutting ant workers (<i>A. vollenweideri</i>). Developmental Neurobiology, 2010, 70, 222-234.	3.0	64
81	Visual experience and age affect synaptic organization in the mushroom bodies of the desert ant <i>Cataglyphis fortis</i>. Developmental Neurobiology, 2010, 70, 408-423.	3.0	128
82	Dummies versus Air Puffs: Efficient Stimulus Delivery for Low-Volatile Odors. Chemical Senses, 2010, 35, 323-333.	2.0	8
83	Parallel Olfactory Systems in Insects: Anatomy and Function. Annual Review of Entomology, 2010, 55, 399-420.	11.8	290
84	Long-Term Memory Leads to Synaptic Reorganization in the Mushroom Bodies: A Memory Trace in the Insect Brain?. Journal of Neuroscience, 2010, 30, 6461-6465.	3.6	170
85	The Antennal Lobes of Fungus-Growing Ants (Attini): Neuroanatomical Traits and Evolutionary Trends. Brain, Behavior and Evolution, 2009, 73, 273-284.	1.7	59
86	Organization of the olfactory pathway and odor processing in the antennal lobe of the ant <i>Camponotus floridanus</i>. Journal of Comparative Neurology, 2008, 506, 425-441.	1.6	125
87	Caste-specific postembryonic development of primary and secondary olfactory centers in the female honeybee brain. Arthropod Structure and Development, 2008, 37, 459-468.	1.4	73
88	Caste- and sex-specific adaptations within the olfactory pathway in the brain of the ant Camponotus floridanus. Arthropod Structure and Development, 2008, 37, 469-479.	1.4	74
89	Presynaptic protein distribution and odour mapping in glomeruli of the olfactory bulb of <i>Xenopus laevis</i> tadpoles. European Journal of Neuroscience, 2007, 26, 925-934.	2.6	21
90	Males of a solitary wasp possess a postpharyngeal gland. Arthropod Structure and Development, 2007, 36, 123-133.	1.4	19

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91	Perceptual differences in trail-following leaf-cutting ants relate to body size. Journal of Insect Physiology, 2007, 53, 1233-1241.	2.0	33
92	Functional neuroanatomy of the rhinophore of Archidoris pseudoargus. Helgoland Marine Research, 2007, 61, 135-142.	1.3	3
93	Functional neuroanatomy of the rhinophore of Aplysia punctata. Frontiers in Zoology, 2006, 3, 6.	2.0	33
94	Multiple olfactory receptor neurons and their axonal projections in the antennal lobe of the honeybee <i>Apis mellifera</i>. Journal of Comparative Neurology, 2006, 496, 395-405.	1.6	57
95	Dual olfactory pathway in the honeybee, <i>Apis mellifera</i>. Journal of Comparative Neurology, 2006, 499, 933-952.	1.6	207
96	Environment- and Age-Dependent Plasticity of Synaptic Complexes in the Mushroom Bodies of Honeybee Queens. Brain, Behavior and Evolution, 2006, 68, 1-14.	1.7	76
97	Biogenic amines in the ponerine ant Harpegnathos saltator: serotonin and dopamine immunoreactivity in the brain. Arthropod Structure and Development, 2005, 34, 429-440.	1.4	45
98	A Macroglomerulus in the Antennal Lobe of Leaf-cutting Ant Workers and its Possible Functional Significance. Chemical Senses, 2005, 30, 383-392.	2.0	86
99	Synaptic organization in the adult honey bee brain is influenced by brood-temperature control during pupal development. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4268-4273.	7.1	212
100	Fâ€actin at identified synapses in the mushroom body neuropil of the insect brain. Journal of Comparative Neurology, 2004, 475, 303-314.	1.6	80
101	Organization of glomeruli in the main olfactory bulb ofXenopus laevistadpoles. Journal of Comparative Neurology, 2003, 464, 257-268.	1.6	28
102	Neuronal representation of odourants in the olfactory bulb ofXenopus laevistadpoles. European Journal of Neuroscience, 2003, 17, 113-118.	2.6	18
103	Behavioral performance in adult honey bees is influenced by the temperature experienced during their pupal development. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 7343-7347.	7.1	243
104	The Auditory-Vibratory Sensory System in Bushcrickets (Tettigoniidae, Ensifera, Orthoptera) I Comparison of Morphology, Development and Physiology. , 2003, , 169-207.		4
105	Aggregation of F-Actin in Olfactory Glomeruli: a Common Feature of Glomeruli Across Phyla. Chemical Senses, 2002, 27, 803-810.	2.0	49
106	cAMPâ€independent responses of olfactory neurons inXenopus laevistadpoles and their projection onto olfactory bulb neurons. Journal of Physiology, 2002, 545, 475-484.	2.9	32
107	Neuronâ€“Glia Communication via Nitric Oxide Is Essential in Establishing Antennal-Lobe Structure in Manduca sexta. Developmental Biology, 2001, 240, 326-339.	2.0	40
108	Fenvalerate treatment affects development of olfactory glomeruli inManduca sexta. Journal of Comparative Neurology, 2001, 430, 533-541.	1.6	5

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109	Importance of timing of olfactory receptor-axon outgrowth for glomerulus development inManduca sexta. Journal of Comparative Neurology, 2000, 425, 233-243.	1.6	14
110	Development of a Glia-Rich Axon-Sorting Zone in the Olfactory Pathway of the Moth<i>Manduca sexta</i>. Journal of Neuroscience, 1999, 19, 9865-9877.	3.6	90
111	Axons of olfactory receptor cells of transsexually grafted antennae induce development of sexually dimorphic glomeruli inManduca sexta. Journal of Neurobiology, 1999, 38, 521-541.	3.6	48
112	Early formation of sexually dimorphic glomeruli in the developing olfactory lobe of the brain of the mothManduca sexta. , 1998, 396, 415-428.		34
113	Postembryonic development of the olfactory system in the mothManduca sexta: primary-afferent control of glomerular development. Seminars in Cell and Developmental Biology, 1997, 8, 163-170.	5.0	43
114	Structure of atympanate tibial organs in legs of the caveâ€living ensifera, <i>Troglophilus neglectus</i> (Gryllacridoidea, Raphidophoridae). Journal of Morphology, 1995, 223, 109-118.	1.2	38
115	Morphology of the tibial organs of acrididae: Comparison of subgenual and distal organs in foreâ€, midâ€ and hindlegs of <i>Schistocerca gregaria</i> (Acrididae, Catantopinae) and <i>Locusta migratoria</i> (Acrididae, Oedipodinae). Journal of Morphology, 1995, 226, 351-360.	1.2	19
116	Causes of the differences in detection of low frequencies in the auditory receptor organs of two species of bushcrickets. The Journal of Experimental Zoology, 1995, 272, 103-115.	1.4	13
117	Physiology of atympanate tibial organs in forelegs and midlegs of the cave-living Ensifera,Troglophilus neglectus (Raphidophoridae, Gryllacridoidea). The Journal of Experimental Zoology, 1995, 273, 376-388.	1.4	34
118	Functional morphology of bushcricket ears: comparison between two species belonging to the Phaneropterinae and Decticinae (Insecta, Ensifera). Zoomorphology, 1994, 114, 39-46.	0.8	38
119	Complex tibial organs in the forelegs, midlegs, and hindlegs of the bushcricketGampsocleis gratiosa (tettigoniidae): Comparison of the physiology of the organs. The Journal of Experimental Zoology, 1994, 270, 155-161.	1.4	46
120	Complex tibial organs in fore-, mid-, and hindlegs of the bushcricketGampsocleis gratiosa(Tettigoniidae): Comparison of morphology of the organs. Journal of Morphology, 1994, 221, 191-198.	1.2	29
121	Similar structural dimensions in bushcricket auditory organs in spite of different foreleg size: Consequences for auditory tuning. Hearing Research, 1994, 80, 191-196.	2.0	7
122	Omega AGA toxin IVA blocks high-voltage-activated calcium channel currents in cultured pars intercerebralis neurosecretory cells of adult locusta migratoria. Neuroscience Letters, 1994, 181, 113-116.	2.1	18
123	Comparison of the physiology of the auditory receptor organs inGryllus bimaculatus andEphippiger ephippiger: CSD Recordings within the auditory neuropiles. Journal of Neurobiology, 1993, 24, 447-455.	3.6	1
124	Auditory receptor organs in the forelegs ofGampsocleis gratiosa (Tettigoniidae): Morphology and function of the organs in comparison to the frequency parameters of the conspecific song. The Journal of Experimental Zoology, 1993, 267, 377-388.	1.4	39
125	Postembryonic development of the complex tibial organ in the foreleg of the bushcricket Ephippiger ephippiger (Orthoptera, Tettigoniidae). Cell and Tissue Research, 1992, 269, 505-514.	2.9	43
126	Functional morphology and development of tibial organs in the legs I, II and III of the bushcricketEphippiger ephippiger (Insecta, Ensifera). Zoomorphology, 1992, 112, 181-188.	0.8	54

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127	Comparative Investigation on the Morphology and Physiology of the Auditory Receptor Organs of Seven Species of Bushcrickets. , 1990, , 241-247.		7
128	Importance of Tooth Impact Rate in Acoustic Communication in Bushcrickets. , 1990, , 248-253.		2
129	Ant-App-DB: a smart solution for monitoring arthropods activities, experimental data management and solar calculations without GPS in behavioral field studies. F1000Research, 0, 3, 311.	1.6	1
130	Flight-Induced Compass Representation in the Monarch Butterfly Heading Network. SSRN Electronic Journal, 0, , .	0.4	1