

Markku Penttonen

List of Publications by Year in descending order

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75
papers

2,989
citations

218677

26
h-index

182427

51
g-index

78
all docs

78
docs citations

78
times ranked

3008
citing authors

#	ARTICLE	IF	CITATIONS
1	Intracellular correlates of hippocampal theta rhythm in identified pyramidal cells, granule cells, and basket cells. <i>Hippocampus</i> , 1995, 5, 78-90.	1.9	362
2	Gamma frequency oscillation in the hippocampus of the rat: intracellular analysis in vivo. <i>European Journal of Neuroscience</i> , 1998, 10, 718-728.	2.6	277
3	Natural logarithmic relationship between brain oscillators. <i>Thalamus & Related Systems</i> , 2003, 2, 145.	0.5	191
4	Interneurons in the Hippocampal Dentate Gyrus: an In Vivo intracellular Study. <i>European Journal of Neuroscience</i> , 1997, 9, 573-588.	2.6	162
5	Termination of Epileptic Afterdischarge in the Hippocampus. <i>Journal of Neuroscience</i> , 1997, 17, 2567-2579.	3.6	130
6	Feed-forward and feed-back activation of the dentate gyrus in vivo during dentate spikes and sharp wave bursts. , 1998, 7, 437-450.		128
7	Coupling between simultaneously recorded BOLD response and neuronal activity in the rat somatosensory cortex. <i>NeuroImage</i> , 2008, 39, 775-785.	4.2	117
8	Epileptic afterdischarge in the hippocampal-entorhinal system: current source density and unit studies. <i>Neuroscience</i> , 1997, 76, 1187-1203.	2.3	103
9	Early Detection of Irreversible Cerebral Ischemia in the Rat Using Dispersion of the Magnetic Resonance Imaging Relaxation Time, T1 ρ . <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2000, 20, 1457-1466.	4.3	95
10	Auditory cortical event-related potentials to pitch deviances in rats. <i>Neuroscience Letters</i> , 1998, 248, 45-48.	2.1	94
11	Epileptic seizure detection: A nonlinear viewpoint. <i>Computer Methods and Programs in Biomedicine</i> , 2005, 79, 151-159.	4.7	93
12	Effects of intracellular pH, blood, and tissue oxygen tension on T1 ρ relaxation in rat brain. <i>Magnetic Resonance in Medicine</i> , 2002, 48, 470-477.	3.0	70
13	Mismatch Negativity (MMN) in Freely-Moving Rats with Several Experimental Controls. <i>PLoS ONE</i> , 2014, 9, e110892.	2.5	70
14	Ultra-slow oscillation (0.025 Hz) triggers hippocampal afterdischarges in Wistar rats. <i>Neuroscience</i> , 1999, 94, 735-743.	2.3	64
15	Disrupting neural activity related to awake-state sharp wave-ripple complexes prevents hippocampal learning. <i>Frontiers in Behavioral Neuroscience</i> , 2012, 6, 84.	2.0	62
16	The Embodied Attunement of Therapists and a Couple within Dialogical Psychotherapy: An Introduction to the Relational Mind Research Project. <i>Family Process</i> , 2015, 54, 703-715.	2.6	59
17	Sympathetic Nervous System Synchrony in Couple Therapy. <i>Journal of Marital and Family Therapy</i> , 2016, 42, 383-395.	1.1	58
18	Memory-Based Mismatch Response to Frequency Changes in Rats. <i>PLoS ONE</i> , 2011, 6, e24208.	2.5	58

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19	Graded Reduction of Cerebral Blood Flow in Rat as Detected by the Nuclear Magnetic Resonance Relaxation Time T_2 : A Theoretical and Experimental Approach. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2000, 20, 316-326.	4.3	54
20	Memory-based detection of rare sound feature combinations in anesthetized rats. <i>NeuroReport</i> , 2006, 17, 1561-1564.	1.2	47
21	Cerebral T_1 relaxation time increases immediately upon global ischemia in the rat independently of blood glucose and anoxic depolarization. <i>Magnetic Resonance in Medicine</i> , 2001, 46, 565-572.	3.0	45
22	Possible physiological role of the perforant path-CA1 projection. <i>Hippocampus</i> , 1995, 5, 141-146.	1.9	40
23	Hippocampal theta (8Hz) activity during classical eyeblink conditioning in rabbits. <i>Neurobiology of Learning and Memory</i> , 2008, 90, 62-70.	1.9	39
24	Hippocampal Ripple-Contingent Training Accelerates Trace Eyeblink Conditioning and Retards Extinction in Rabbits. <i>Journal of Neuroscience</i> , 2010, 30, 11486-11492.	3.6	33
25	Optogenetically Blocking Sharp Wave Ripple Events in Sleep Does Not Interfere with the Formation of Stable Spatial Representation in the CA1 Area of the Hippocampus. <i>PLoS ONE</i> , 2016, 11, e0164675.	2.5	33
26	Auditory Cortical and Hippocampal-System Mismatch Responses to Duration Deviants in Urethane-Anesthetized Rats. <i>PLoS ONE</i> , 2013, 8, e54624.	2.5	32
27	Quantitative Assessment of the Balance between Oxygen Delivery and Consumption in the Rat Brain after Transient Ischemia with T2-BOLD Magnetic Resonance Imaging. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2002, 22, 262-270.	4.3	27
28	Soft Prosody and Embodied Attunement in Therapeutic Interaction: A Multimethod Case Study of a Moment of Change. <i>Journal of Constructivist Psychology</i> , 2017, 30, 211-234.	1.1	27
29	Hippocampal theta-band activity and trace eyeblink conditioning in rabbits. <i>Behavioral Neuroscience</i> , 2009, 123, 631-640.	1.2	21
30	Hippocampal electrical stimulation disrupts associative learning when targeted at dentate spikes. <i>Journal of Physiology</i> , 2017, 595, 4961-4971.	2.9	21
31	Hippocampal evoked potentials to pitch deviances in an auditory oddball situation in the rabbit: no human mismatch-like dependence on standard stimuli. <i>Neuroscience Letters</i> , 1995, 185, 123-126.	2.1	20
32	Diazepam binding inhibitor overexpression in mice causes hydrocephalus, decreases plasticity in excitatory synapses and impairs hippocampus-dependent learning. <i>Molecular and Cellular Neurosciences</i> , 2007, 34, 199-208.	2.2	20
33	Affective Arousal During Blaming in Couple Therapy: Combining Analyses of Verbal Discourse and Physiological Responses in Two Case Studies. <i>Contemporary Family Therapy</i> , 2016, 38, 373-384.	1.3	20
34	Hippocampal event-related potentials to pitch deviances in an auditory oddball situation in the cat: Experiment I. <i>International Journal of Psychophysiology</i> , 1995, 20, 33-39.	1.0	18
35	The Relational Mind in Couple Therapy: A Bateson-Inspired View of Human Life as an Embodied Stream. <i>Family Process</i> , 2018, 57, 855-866.	2.6	17
36	Breathe out and learn: Expiration-contingent stimulus presentation facilitates associative learning in trace eyeblink conditioning. <i>Psychophysiology</i> , 2019, 56, e13387.	2.4	17

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37	Auditory cortical and hippocampal local-field potentials to frequency deviant tones in urethane-anesthetized rats: An unexpected role of the sound frequencies themselves. <i>International Journal of Psychophysiology</i> , 2015, 96, 134-140.	1.0	15
38	Sympathetic nervous system synchrony: An exploratory study of its relationship with the therapeutic alliance and outcome in couple therapy.. <i>Psychotherapy</i> , 2020, 57, 160-173.	1.2	15
39	Behavioral and hippocampal evoked responses in an auditory oddball situation when an unconditioned stimulus is paired with deviant tones in the cat: Experiment II. <i>International Journal of Psychophysiology</i> , 1995, 20, 41-47.	1.0	13
40	Learning by heart: cardiac cycle reveals an effective time window for learning. <i>Journal of Neurophysiology</i> , 2018, 120, 830-838.	1.8	13
41	Alliance Formations in Couple Therapy: A Multimodal and Multimethod Study. <i>Journal of Couple and Relationship Therapy</i> , 2019, 18, 189-222.	0.8	13
42	The Added Value of Studying Embodied Responses in Couple Therapy Research: A Case Study. <i>Family Process</i> , 2019, 58, 685-697.	2.6	12
43	Phase matters: responding to and learning about peripheral stimuli depends on hippocampal θ phase at stimulus onset. <i>Learning and Memory</i> , 2015, 22, 307-317.	1.3	11
44	Dentate spikes and learning: disrupting hippocampal function during memory consolidation can improve pattern separation. <i>Journal of Neurophysiology</i> , 2019, 121, 131-139.	1.8	11
45	Hippocampus Retains the Periodicity of Gamma Stimulation In Vivo. <i>Journal of Neurophysiology</i> , 2002, 88, 2349-2354.	1.8	10
46	Behavioral and neural characteristics of short-latency and long-latency conditioned responses in cats.. <i>Behavioral Neuroscience</i> , 1989, 103, 944-955.	1.2	9
47	Electrophysiologic changes in the lateral and basal amygdaloid nuclei in temporal lobe epilepsy: an in vitro study in epileptic rats. <i>Neuroscience</i> , 2004, 124, 269-281.	2.3	9
48	Independent component analysis of neural populations from multielectrode field potential measurements. <i>Journal of Neuroscience Methods</i> , 2005, 145, 213-232.	2.5	9
49	A multi-componential methodology for exploring emotions in learning. , 0, , 6-36.		9
50	Nonverbal Synchrony in Couple Therapy Linked to Clients' Well-Being and the Therapeutic Alliance. <i>Frontiers in Psychology</i> , 2021, 12, 718353.	2.1	9
51	The Significance of Silent Moments in Creating Words for the Not-Yet-Spoken Experiences in Threat of Divorce. <i>Psychology</i> , 2015, 06, 1360-1372.	0.5	8
52	Rhythmic Memory Consolidation in the Hippocampus. <i>Frontiers in Neural Circuits</i> , 2022, 16, 885684.	2.8	8
53	Contribution of a single CA3 neuron to network synchrony. <i>NeuroImage</i> , 2006, 31, 1222-1227.	4.2	7
54	The role of adolescents' temperament in their positive and negative emotions as well as in psychophysiological reactions during achievement situations. <i>Learning and Individual Differences</i> , 2019, 69, 116-128.	2.7	7

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55	Irradiation of the head reduces adult hippocampal neurogenesis and impairs spatial memory, but leaves overall health intact in rats. <i>European Journal of Neuroscience</i> , 2021, 53, 1885-1904.	2.6	7
56	Significant Moments in a Couple Therapy Session: Towards the Integration of Different Modalities of Analysis. <i>European Family Therapy Association Series</i> , 2020, , 55-73.	0.3	7
57	Cardiac cycle and respiration phase affect responses to the conditioned stimulus in young adults trained in trace eyeblink conditioning. <i>Journal of Neurophysiology</i> , 2022, 127, 767-775.	1.8	7
58	Conditioned orienting (alpha) and delayed behavioral and evoked neural responses during classical conditioning. <i>Behavioural Brain Research</i> , 1989, 34, 179-197.	2.2	6
59	Evoked local field potentials can explain temporal variation in blood oxygenation levelâ€dependent responses in rat somatosensory cortex. <i>NMR in Biomedicine</i> , 2011, 24, 209-215.	2.8	6
60	Electrodermal Activity, Respiratory Sinus Arrhythmia, and Heart Rate Variability in a Relationship Enrichment Program. <i>Mindfulness</i> , 2018, 9, 1076-1087.	2.8	6
61	Electrodermal Activity in Couple Therapy for Intimate Partner Violence. <i>Contemporary Family Therapy</i> , 2018, 40, 138-152.	1.3	5
62	Associations Between Sympathetic Nervous System Synchrony, Movement Synchrony, and Speech in Couple Therapy. <i>Frontiers in Psychology</i> , 2022, 13, 818356.	2.1	5
63	Frequency bands and spatiotemporal dynamics of Î² burst stimulation induced afterdischarges in hippocampus in vivo. <i>Neuroscience</i> , 2005, 130, 239-247.	2.3	4
64	Studying Nonverbal Synchrony in Couple Therapyâ€Observing Implicit Posture and Movement Synchrony. <i>Contemporary Family Therapy</i> , 2021, 43, 69-87.	1.3	4
65	Deviance detection in sound frequency in simple and complex sounds in urethane-anesthetized rats. <i>Hearing Research</i> , 2021, 399, 107814.	2.0	4
66	Effects of lateralized US and CS presentations on conditioned head turning and bilateral cingulate cortex responses in cats. <i>Behavioral and Neural Biology</i> , 1993, 59, 9-17.	2.2	3
67	Hippocampal theta phaseâ€contingent memory retrieval in delay and trace eyeblink conditioning. <i>Behavioural Brain Research</i> , 2018, 337, 264-270.	2.2	3
68	Most hippocampal CA1 pyramidal cells in rabbits increase firing during awake sharp-wave ripples and some do so in response to external stimulation and theta. <i>Journal of Neurophysiology</i> , 2020, 123, 1671-1681.	1.8	3
69	Asymmetries in Classically Conditioned Head Movements and Cingulate Cortex Slow Potentials in Cats. <i>International Journal of Neuroscience</i> , 1991, 61, 121-134.	1.6	2
70	A microcomputer system for controlling classical conditioning experiments. <i>Behavior Research Methods</i> , 1994, 26, 447-453.	1.3	2
71	Use of spin echo T2 BOLD in assessment of cerebral misery perfusion at 1.5 T. <i>Magnetic Resonance Materials in Physics, Biology, and Medicine</i> , 2001, 12, 32-39.	2.0	2
72	Effects of rewarding electrical stimulation of lateral hypothalamus on classical conditioning of the nictitating membrane response. <i>Progress in Neuro-Psychopharmacology and Biological Psychiatry</i> , 1997, 21, 613-631.	4.8	1

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73	Bilaterally recorded multiple-unit activity of the cingulate cortex during head turning conditioning with unilateral medial forebrain bundle stimulation. <i>Scandinavian Journal of Psychology</i> , 1993, 34, 268-275.	1.5	0
74	Een studie naar non-verbale synchroniciteit in relatietherapie door observatie van impliciet synchrone houdingen en bewegingen. <i>Gezinstherapie Wereldwijd</i> , 2022, 33, 4-38.	0.0	0
75	Unilateral medial forebrain bundle activation selectively enhances conditioned orienting head turns and ipsilateral cingulate cortex evoked field responses in cats. <i>Cognitive, Affective and Behavioral Neuroscience</i> , 1994, 22, 22-30.	1.3	0