

# Rosa H M Chan

## List of Publications by Year in descending order

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95  
papers

2,336  
citations

279701

23  
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254106

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97  
docs citations

97  
times ranked

2238  
citing authors

#	ARTICLE	IF	CITATIONS
1	Nonlinear Dynamic Modeling of Spike Train Transformations for Hippocampal-Cortical Prostheses. IEEE Transactions on Biomedical Engineering, 2007, 54, 1053-1066.	2.5	175
2	A Hippocampal Cognitive Prosthesis: Multi-Input, Multi-Output Nonlinear Modeling and VLSI Implementation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 198-211.	2.7	156
3	An evaluation of mental workload with frontal EEG. PLoS ONE, 2017, 12, e0174949.	1.1	138
4	Gait Retraining for the Reduction of Injury Occurrence in Novice Distance Runners: 1-Year Follow-up of a Randomized Controlled Trial. American Journal of Sports Medicine, 2018, 46, 388-395.	1.9	130
5	Nonlinear modeling of neural population dynamics for hippocampal prostheses. Neural Networks, 2009, 22, 1340-1351.	3.3	117
6	Dielectrophoretic Batch Fabrication of Bundled Carbon Nanotube Thermal Sensors. IEEE Nanotechnology Magazine, 2004, 3, 395-403.	1.1	108
7	Rapid assembly of carbon nanotubes for nanosensing by dielectrophoretic force. Nanotechnology, 2004, 15, S672-S677.	1.3	79
8	Plasticity of muscle synergies through fractionation and merging during development and training of human runners. Nature Communications, 2020, 11, 4356.	5.8	68
9	The Neurobiological Basis of Cognition: Identification by Multi-Input, Multioutput Nonlinear Dynamic Modeling. Proceedings of the IEEE, 2010, 98, 356-374.	16.4	66
10	A Nonlinear Model for Hippocampal Cognitive Prosthesis: Memory Facilitation by Hippocampal Ensemble Stimulation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 184-197.	2.7	63
11	Are We Ready for Service Robots? The OpenLORIS-Scene Datasets for Lifelong SLAM. , 2020, , .		59
12	IoT for Next-Generation Racket Sports Training. IEEE Internet of Things Journal, 2018, 5, 4558-4566.	5.5	58
13	Volleyball Skill Assessment Using a Single Wearable Micro Inertial Measurement Unit at Wrist. IEEE Access, 2018, 6, 13758-13765.	2.6	57
14	Donor/recipient enhancement of memory in rat hippocampus. Frontiers in Systems Neuroscience, 2013, 7, 120.	1.2	53
15	Astrocytic I -Lactate Signaling Facilitates Amygdala-Anterior Cingulate Cortex Synchrony and Decision Making in Rats. Cell Reports, 2017, 21, 2407-2418.	2.9	45
16	Multimodal hand gesture recognition using single IMU and acoustic measurements at wrist. PLoS ONE, 2020, 15, e0227039.	1.1	35
17	Impairment of cognitive function by chemotherapy: association with the disruption of phase-locking and synchronization in anterior cingulate cortex. Molecular Brain, 2015, 8, 32.	1.3	33
18	Real-Time Estimation of Knee Adduction Moment for Gait Retraining in Patients With Knee Osteoarthritis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 888-894.	2.7	33

#	ARTICLE	IF	CITATIONS
19	Spectral modulation of frontal EEG during motor skill acquisition: A mobile EEG study. <i>International Journal of Psychophysiology</i> , 2014, 91, 16-21.	0.5	31
20	OpenLORIS-Object: A Robotic Vision Dataset and Benchmark for Lifelong Deep Learning. , 2020, , .		28
21	Heterogeneous feature subset selection using mutual information-based feature transformation. <i>Neurocomputing</i> , 2015, 168, 706-718.	3.5	26
22	Vagus Nerve Stimulation Alters Phase Synchrony of the Anterior Cingulate Cortex and Facilitates Decision Making in Rats. <i>Scientific Reports</i> , 2016, 6, 35135.	1.6	26
23	Real-Time Prediction of Neuronal Population Spiking Activity Using FPGA. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2013, 7, 489-498.	2.7	25
24	A wearable hand gesture recognition device based on acoustic measurements at wrist. , 2017, 2017, 4443-4446.		25
25	Effects of footwear midsole thickness on running biomechanics. <i>Journal of Sports Sciences</i> , 2019, 37, 1004-1010.	1.0	25
26	Closing the Loop for Memory Prosthesis: Detecting the Role of Hippocampal Neural Ensembles Using Nonlinear Models. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2012, 20, 510-525.	2.7	24
27	A High-Throughput Zebrafish Screening Method for Visual Mutants by Light-Induced Locomotor Response. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , 2014, 11, 693-701.	1.9	24
28	Compact Graph based Semi-Supervised Learning for Medical Diagnosis in Alzheimer's Disease. <i>IEEE Signal Processing Letters</i> , 2014, 21, 1192-1196.	2.1	24
29	Clustering Heterogeneous Data with k-Means by Mutual Information-Based Unsupervised Feature Transformation. <i>Entropy</i> , 2015, 17, 1535-1548.	1.1	22
30	Impairment of decision making and disruption of synchrony between basolateral amygdala and anterior cingulate cortex in the maternally separated rat. <i>Neurobiology of Learning and Memory</i> , 2016, 136, 74-85.	1.0	22
31	Bilateral asymmetry of running gait in competitive, recreational and novice runners at different speeds. <i>Human Movement Science</i> , 2020, 71, 102600.	0.6	22
32	The biomechanical difference between running with traditional and 3D printed orthoses. <i>Journal of Sports Sciences</i> , 2019, 37, 2191-2197.	1.0	21
33	Evaluating the Small-World-Ness of a Sampled Network: Functional Connectivity of Entorhinal-Hippocampal Circuitry. <i>Scientific Reports</i> , 2016, 6, 21468.	1.6	19
34	Control of impact loading during distracted running before and after gait retraining in runners. <i>Journal of Sports Sciences</i> , 2018, 36, 1497-1501.	1.0	19
35	Tracking temporal evolution of nonlinear dynamics in hippocampus using time-varying volterra kernels. , 2008, 2008, 4996-9.		18
36	Sparse generalized Laguerre-Volterra model of neural population dynamics. , 2009, 2009, 4555-8.		18

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37	Trace Ratio Linear Discriminant Analysis for Medical Diagnosis: A Case Study of Dementia. IEEE Signal Processing Letters, 2013, 20, 431-434.	2.1	18
38	Computational classification of different wild-type zebrafish strains based on their variation in light-induced locomotor response. Computers in Biology and Medicine, 2016, 69, 1-9.	3.9	18
39	Classification of runners's performance levels with concurrent prediction of biomechanical parameters using data from inertial measurement units. Journal of Biomechanics, 2020, 112, 110072.	0.9	18
40	High-Performance and Scalable System Architecture for the Real-Time Estimation of Generalized Laguerre-Volterra MIMO Model From Neural Population Spiking Activity. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2011, 1, 489-501.	2.7	17
41	Identification of functional synaptic plasticity from spiking activities using nonlinear dynamical modeling. Journal of Neuroscience Methods, 2015, 244, 123-135.	1.3	17
42	Hand Gesture Recognition Using Multiple Acoustic Measurements at Wrist. IEEE Transactions on Human-Machine Systems, 2021, 51, 56-62.	2.5	17
43	Memory encoding in hippocampal ensembles is negatively influenced by cannabinoid CB1 receptors. Behavioural Pharmacology, 2011, 22, 335-346.	0.8	16
44	Impact Loading During Distracted Running Before and After Auditory Gait Retraining. International Journal of Sports Medicine, 2018, 39, 1075-1080.	0.8	16
45	Modulating the Structure of Motor Variability for Skill Learning Through Specific Muscle Synergies in Elderlies and Young Adults. IEEE Open Journal of Engineering in Medicine and Biology, 2020, 1, 33-40.	1.7	16
46	Naming Game on Networks: Let Everyone be Both Speaker and Hearer. Scientific Reports, 2015, 4, 6149.	1.6	15
47	Neurophysiological Correlates of Gait Retraining With Real-Time Visual and Auditory Feedback. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 1341-1349.	2.7	15
48	Role of the Hippocampus in Memory Formation : Restorative Encoding Memory Integration Neural Device As a Cognitive Neural Prosthesis. IEEE Pulse, 2012, 3, 17-22.	0.1	14
49	Cortical Hemodynamic Response and Connectivity Modulated by Sub-threshold High-Frequency Repetitive Transcranial Magnetic Stimulation. Frontiers in Human Neuroscience, 2019, 13, 90.	1.0	13
50	The effects of midfoot strike gait retraining on impact loading and joint stiffness. Physical Therapy in Sport, 2020, 42, 139-145.	0.8	13
51	Statistical Selection of Multiple-Input Multiple-Output Nonlinear Dynamic Models of Spike Train Transformation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 4727-30.	0.5	12
52	Evaluation of mental workload in visual-motor task: Spectral analysis of single-channel frontal EEG. , 2013, , .		12
53	Can runners maintain a newly learned gait pattern outside a laboratory environment following gait retraining?. Gait and Posture, 2019, 69, 8-12.	0.6	12
54	Challenges in Task Incremental Learning for Assistive Robotics. IEEE Access, 2020, 8, 3434-3441.	2.6	12

#	ARTICLE	IF	CITATIONS
55	Sensor-Based Gait Retraining Lowers Knee Adduction Moment and Improves Symptoms in Patients with Knee Osteoarthritis: A Randomized Controlled Trial. <i>Sensors</i> , 2021, 21, 5596.	2.1	11
56	Nonstationary modeling of neural population dynamics. , 2009, 2009, 4559-62.		9
57	Tracking the changes of hippocampal population nonlinear dynamics in rats learning a memory-dependent task. , 2011, 2011, 3326-9.		9
58	Cross-frequency information transfer from EEG to EMG in grasping. , 2016, 2016, 4531-4534.		9
59	Physiologically Plausible Stochastic Nonlinear Kernel Models of Spike Train to Spike Train Transformation. , 2006, 2006, 6129-32.		8
60	Functional connectivity between Layer 2/3 and Layer 5 neurons in prefrontal cortex of nonhuman primates during a delayed match-to-sample task. , 2012, 2012, 2555-8.		8
61	VA2Mass: Towards the Fluid Filling Mass Estimation via Integration of Vision and Audio Learning. <i>Lecture Notes in Computer Science</i> , 2021, , 451-463.	1.0	8
62	Cognitively Relevant Recoding in Hippocampus: Beneficial Feedback of Ensemble Codes in a Closed Loop Paradigm. <i>Neuroinformatics</i> , 2011, , 215-239.	0.2	8
63	An FPGA based scalable architecture of a stochastic state point process filter (SSPPF) to track the nonlinear dynamics underlying neural spiking. <i>Microelectronics Journal</i> , 2014, 45, 690-701.	1.1	7
64	An inverted ankle joint orientation at foot strike could incite ankle inversion sprain: Comparison between injury and non-injured cutting motions of a tennis player. <i>Foot</i> , 2021, 48, 101853.	0.4	7
65	Changes of hippocampal CA3-CA1 population nonlinear dynamics across different training sessions in rats performing a memory-dependent task. , 2010, 2010, 5464-7.		6
66	Spectral modulation of frontal EEG activities during motor skill acquisition: task familiarity monitoring using single-channel EEG. , 2013, 2013, 5638-41.		6
67	A Sparse Multiwavelet-Based Generalized Laguerre-Volterra Model for Identifying Time-Varying Neural Dynamics from Spiking Activities. <i>Entropy</i> , 2017, 19, 425.	1.1	6
68	Comparing biological and artificial vision systems: Network measures of functional connectivity. <i>Neuroscience Letters</i> , 2020, 739, 135407.	1.0	6
69	Biomechanical effects following footstrike pattern modification using wearable sensors. <i>Journal of Science and Medicine in Sport</i> , 2021, 24, 30-35.	0.6	6
70	The influence of running shoes on familiarization time for treadmill running biomechanics evaluation. <i>Sports Biomechanics</i> , 2023, 22, 459-472.	0.8	6
71	Identification of time-varying neural dynamics from spike train data using multiwavelet basis functions. <i>Journal of Neuroscience Methods</i> , 2017, 278, 46-56.	1.3	5
72	Laguerre-volterra model and architecture for MIMO system identification and output prediction. , 2014, 2014, 4539-42.		4

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73	How do training experience and geographical origin of a runner affect running biomechanics?. Gait and Posture, 2021, 84, 209-214.	0.6	4
74	Estimation and statistical validation of event-invariant nonlinear dynamic models of hippocampal CA3-CA1 population activities. , 2011, 2011, 3330-3.		3
75	A dual mode FPGA design for the hippocampal prosthesis. , 2012, 2012, 4579-82.		3
76	On-Chip Systolic Networks for Real-Time Tracking of Pairwise Correlations Between Neurons in a Large-Scale Network. IEEE Transactions on Biomedical Engineering, 2013, 60, 198-202.	2.5	3
77	Reconstruction of neural network topology using spike train data: Small-world features of hippocampal network. , 2015, 2015, 2506-9.		3
78	Effective connectivity matrix for neural ensembles. , 2016, 2016, 1612-1615.		3
79	Difference in the running biomechanics between preschoolers and adults. Brazilian Journal of Physical Therapy, 2021, 25, 162-167.	1.1	3
80	An investigation of in-ear sensing for motor task classification. Journal of Neural Engineering, 2020, 17, 066010.	1.8	3
81	Identification of functional synaptic plasticity from ensemble spiking activities: A nonlinear dynamical modeling approach. , 2013, , .		2
82	A reconfigurable architecture for real-time prediction of neural activity. , 2013, , .		2
83	Dimensionality reduction of hybrid data using mutual information-based unsupervised feature transformation: With application on intrusion detection. , 2015, , .		2
84	Directionality indices: Testing information transfer with surrogate correction. Physical Review E, 2017, 96, 052220.	0.8	2
85	Weighted Network Density Predicts Range of Latent Variable Model Accuracy. , 2018, 2018, 2414-2417.		2
86	Evaluation of COVID-19 Restrictions on Distance Runners' Training Habits Using Wearable Trackers. Frontiers in Sports and Active Living, 2021, 3, 812214.	0.9	2
87	The CORSMAL Benchmark for the Prediction of the Properties of Containers. IEEE Access, 2022, 10, 41388-41402.	2.6	2
88	FPGA Architecture of Generalized Laguerre-Volterra MIMO Model for Neural Population Activities. , 2011, , .		1
89	A hardware-based computational platform for Generalized Laguerre-Volterra MIMO model for neural activities. , 2011, 2011, 7282-5.		1
90	A framework for quantification and visualization of segmentation accuracy and variability in 3D lateral ventricle ultrasound images of preterm neonates. Medical Physics, 2015, 42, 6387-6405.	1.6	1

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91	Entropy of surface EMG reflects object weight in grasp-and-lift task. , 2017, 2017, 2530-2533.		1
92	Latent Variable Models Reconstruct Diversity of Neuronal Response to Drifting Gratings in Murine Visual Cortex. IEEE Access, 2021, 9, 75741-75750.	2.6	0
93	An Efficient and Flexible Spike Train Model Via Empirical Bayes. IEEE Transactions on Signal Processing, 2021, 69, 3236-3251.	3.2	0
94	High-Performance Computing for Neuroinformatics Using FPGA. , 2013, , 177-207.		0
95	Physiologically Plausible Stochastic Nonlinear Kernel Models of Spike Train to Spike Train Transformation. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0