

# German Mato

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8668002/publications.pdf>

Version: 2024-02-01

47  
papers

2,422  
citations

394421

19  
h-index

289244

40  
g-index

50  
all docs

50  
docs citations

50  
times ranked

1731  
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection of Fibrosis in Cine Magnetic Resonance Images Using Artificial Intelligence Techniques. , 2022, 90, 130-133.		0
2	CardIac: an open-source application for myocardial strain analysis. International Journal of Computer Assisted Radiology and Surgery, 2021, 16, 65-79.	2.8	2
3	Differential contribution of the subthreshold operating currents $I_T$ , $I_h$ , and $I_{Kir}$ to the resonance of thalamocortical neurons. Journal of Neurophysiology, 2021, 126, 561-574.	1.8	2
4	Cuantificaci3n autom3tica de los vol3menes y funci3n de ambos ventr3culos en resonancia card3aca. Propuesta y evaluaci3n de un m3todo de inteligencia artificial. , 2021, 89, 350-354.		0
5	Complex interplay between spectral harmonicity and different types of cross-frequency couplings in nonlinear oscillators and biologically plausible neural network models. Physical Review E, 2020, 102, 062401.	2.1	4
6	Left ventricle segmentation using a Bayesian approach with distance dependent shape priors. Biomedical Physics and Engineering Express, 2020, 6, 045013.	1.2	1
7	Two types of ictal phase-amplitude couplings in epilepsy patients revealed by spectral harmonicity of intracerebral EEG recordings. Clinical Neurophysiology, 2020, 131, 1866-1885.	1.5	7
8	Bifurcation structure determines different phase-amplitude coupling patterns in the activity of biologically plausible neural networks. NeuroImage, 2019, 202, 116031.	4.2	23
9	Automatic quantification of the LV function and mass: A deep learning approach for cardiovascular MRI. Computer Methods and Programs in Biomedicine, 2019, 169, 37-50.	4.7	23
10	Dynamical and topological aspects of consensus formation in complex networks. Physica A: Statistical Mechanics and Its Applications, 2018, 495, 152-161.	2.6	8
11	Inward rectifier potassium current $I_{Kir}$ promotes intrinsic pacemaker activity of thalamocortical neurons. Journal of Neurophysiology, 2018, 119, 2358-2372.	1.8	10
12	Emergent Orientation Selectivity from Random Networks in Mouse Visual Cortex. Cell Reports, 2018, 24, 2042-2050.e6.	6.4	37
13	Automatic myocardial segmentation by using a deep learning network in cardiac MRI. , 2017, , .		19
14	Mechanisms for pattern specificity of deep-brain stimulation in Parkinson's disease. PLoS ONE, 2017, 12, e0182884.	2.5	11
15	The effect of synaptic plasticity on orientation selectivity in a balanced model of primary visual cortex. Frontiers in Neural Circuits, 2015, 9, 42.	2.8	2
16	Analysis of the role of the low threshold currents $I_T$ and $I_h$ in intrinsic delta oscillations of thalamocortical neurons. Frontiers in Computational Neuroscience, 2015, 9, 52.	2.1	15
17	The interplay of seven subthreshold conductances controls the resting membrane potential and the oscillatory behavior of thalamocortical neurons. Journal of Neurophysiology, 2014, 112, 393-410.	1.8	41
18	Short-Term Plasticity Explains Irregular Persistent Activity in Working Memory Tasks. Journal of Neuroscience, 2013, 33, 133-149.	3.6	106

#	ARTICLE	IF	CITATIONS
19	Linking dynamical and functional properties of intrinsically bursting neurons. Journal of Computational Neuroscience, 2013, 35, 213-230.	1.0	11
20	Inferring single neuron properties in conductance based balanced networks. Frontiers in Computational Neuroscience, 2011, 5, 41.	2.1	1
21	Maximum Evidence Method for classification of brain tissues in MRI. Pattern Recognition Letters, 2011, 32, 12-18.	4.2	9
22	Spike-Timing-Dependent Plasticity and Reliability Optimization: The Role of Neuron Dynamics. Neural Computation, 2011, 23, 1768-1789.	2.2	8
23	Hebbian Plasticity and Homeostasis in a Model of Hypercolumn of the Visual Cortex. Neural Computation, 2010, 22, 1837-1859.	2.2	6
24	Deformable CT Registration Using Fourier Basis Functions in 3D. , 2010, , .		1
25	Bayesian Estimation of Hyperparameters in MRI through the Maximum Evidence Method. , 2008, , .		1
26	Type I and Type II Neuron Models Are Selectively Driven by Differential Stimulus Features. Neural Computation, 2008, 20, 2418-2440.	2.2	33
27	Inhibition potentiates the synchronizing action of electrical synapses. Frontiers in Computational Neuroscience, 2007, 1, 8.	2.1	18
28	Lecturers. Les Houches Summer School Proceedings, 2005, 80, ix.	0.2	0
29	The Combined Effects of Inhibitory and Electrical Synapses in Synchrony. Neural Computation, 2005, 17, 633-670.	2.2	98
30	Asynchronous States and the Emergence of Synchrony in Large Networks of Interacting Excitatory and Inhibitory Neurons. Neural Computation, 2003, 15, 1-56.	2.2	125
31	Electrical Synapses and Synchrony: The Role of Intrinsic Currents. Journal of Neuroscience, 2003, 23, 6280-6294.	3.6	152
32	Controlling chaos in systems of coupled oscillators. Physica A: Statistical Mechanics and Its Applications, 2002, 307, 315-330.	2.6	1
33	Chapter 21 Mechanisms of synchrony of neural activity in large networks. Handbook of Biological Physics, 2001, 4, 887-968.	0.8	39
34	Existence and Stability of Persistent States in Large Neuronal Networks. Physical Review Letters, 2001, 86, 4175-4178.	7.8	103
35	Synchrony in Heterogeneous Networks of Spiking Neurons. Neural Computation, 2000, 12, 1607-1641.	2.2	81
36	Stochastic resonance using noise generated by a neural network. Physical Review E, 1999, 59, 3339-3343.	2.1	38

#	ARTICLE	IF	CITATIONS
37	On Numerical Simulations of Integrate-and-Fire Neural Networks. <i>Neural Computation</i> , 1998, 10, 467-483.	2.2	183
38	Stochastic resonance in neural systems: Effect of temporal correlation in the spike trains. <i>Physical Review E</i> , 1998, 58, 876-880.	2.1	29
39	Self-Similarity Properties of Natural Images Resemble Those of Turbulent Flows. <i>Physical Review Letters</i> , 1998, 80, 1098-1101.	7.8	75
40	Neural Network Models of Perceptual Learning of Angle Discrimination. <i>Neural Computation</i> , 1996, 8, 270-299.	2.2	9
41	Synchrony in Excitatory Neural Networks. <i>Neural Computation</i> , 1995, 7, 307-337.	2.2	527
42	Patterns of synchrony in a heterogeneous Hodgkin-Huxley neural network with weak coupling. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1993, 200, 662-669.	2.6	15
43	Phase Dynamics for Weakly Coupled Hodgkin-Huxley Neurons. <i>Europhysics Letters</i> , 1993, 23, 367-372.	2.0	269
44	Clustering and slow switching in globally coupled phase oscillators. <i>Physical Review E</i> , 1993, 48, 3470-3477.	2.1	216
45	Memorization Without Generalization in a Multilayered Neural Network. <i>Europhysics Letters</i> , 1992, 20, 471-476.	2.0	28
46	Fractal wavefunctions in one-dimensional disordered systems with an electric field. <i>Journal of Physics Condensed Matter</i> , 1989, 1, 901-905.	1.8	12
47	Multi-fractal wavefunctions in one-dimensional disordered systems. <i>Journal of Physics C: Solid State Physics</i> , 1987, 20, L717-L721.	1.5	15