

# Michael Beyeler

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

29  
papers

741  
citations

14  
h-index

27  
g-index

40  
ext. papers

988  
ext. citations

5.3  
avg, IF

4.09  
L-index

#	Paper	IF	Citations
29	Explainable AI for Retinal Prostheses: Predicting Electrode Deactivation from Routine Clinical Measures <b>2021</b> ,		1
28	Deep LearningBased Scene Simplification for Bionic Vision <b>2021</b> ,		1
27	A Computational Model of Phosphene Appearance for Epiretinal Prostheses. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2021</b> , 2021, 4477-4481	0.9	0
26	Learning to see again: Perceptual learning of simulated abnormal on- off-cell population responses in sighted individuals.. <i>Journal of Vision</i> , <b>2021</b> , 21, 10	0.4	
25	Biophysical model of axonal stimulation in epiretinal visual prostheses <b>2019</b> ,		3
24	A model of ganglion axon pathways accounts for percepts elicited by retinal implants. <i>Scientific Reports</i> , <b>2019</b> , 9, 9199	4.9	39
23	Commentary: Detailed Visual Cortical Responses Generated by Retinal Sheet Transplants in Rats With Severe Retinal Degeneration. <i>Frontiers in Neuroscience</i> , <b>2019</b> , 13, 471	5.1	0
22	Neural correlates of sparse coding and dimensionality reduction. <i>PLoS Computational Biology</i> , <b>2019</b> , 15, e1006908	5	29
21	Data-driven models in human neuroscience and neuroengineering. <i>Current Opinion in Neurobiology</i> , <b>2019</b> , 58, 21-29	7.6	10
20	Model-Based Recommendations for Optimal Surgical Placement of Epiretinal Implants.. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 11768, 394-402	0.9	1
19	CARLsim 4: An Open Source Library for Large Scale, Biologically Detailed Spiking Neural Network Simulation using Heterogeneous Clusters <b>2018</b> ,		37
18	Learning to see again: biological constraints on cortical plasticity and the implications for sight restoration technologies. <i>Journal of Neural Engineering</i> , <b>2017</b> , 14, 051003	5	48
17	Modeling the perceptual experience of retinal prosthesis patients. <i>Journal of Vision</i> , <b>2017</b> , 17, 573	0.4	2
16	pulse2percept: A Python-based simulation framework for bionic vision <b>2017</b> ,		12
15	3D Visual Response Properties of MSTd Emerge from an Efficient, Sparse Population Code. <i>Journal of Neuroscience</i> , <b>2016</b> , 36, 8399-415	6.6	9
14	Label-free detection of tobramycin in serum by transmission-localized surface plasmon resonance. <i>Analytical Chemistry</i> , <b>2015</b> , 87, 5278-85	7.8	95
13	Neoadjuvant chemotherapy and extrapleural pneumonectomy of malignant pleural mesothelioma with or without hemithoracic radiotherapy (SAKK 17/04): a randomised, international, multicentre phase 2 trial. <i>Lancet Oncology, The</i> , <b>2015</b> , 16, 1651-8	21.7	140

12	A GPU-accelerated cortical neural network model for visually guided robot navigation. <i>Neural Networks</i> , <b>2015</b> , 72, 75-87	9.1	22
11	CARLsim 3: A user-friendly and highly optimized library for the creation of neurobiologically detailed spiking neural networks <b>2015</b> ,		29
10	Efficient spiking neural network model of pattern motion selectivity in visual cortex. <i>Neuroinformatics</i> , <b>2014</b> , 12, 435-54	3.2	14
9	Vision-based robust road lane detection in urban environments <b>2014</b> ,		22
8	GPGPU accelerated simulation and parameter tuning for neuromorphic applications <b>2014</b> ,		3
7	Categorization and decision-making in a neurobiologically plausible spiking network using a STDP-like learning rule. <i>Neural Networks</i> , <b>2013</b> , 48, 109-24	9.1	70
6	Exploring olfactory sensory networks: Simulations and hardware emulation <b>2010</b> ,		6
5	The FGFR1 receptor is shed from cell membranes, binds fibroblast growth factors (FGFs), and antagonizes FGF signaling in <i>Xenopus</i> embryos. <i>Journal of Biological Chemistry</i> , <b>2010</b> , 285, 2193-202	5.4	54
4	Identification of a fibronectin interaction site in the extracellular matrix protein ameloblastin. <i>Experimental Cell Research</i> , <b>2010</b> , 316, 1202-12	4.2	35
3	The murine Fgfr1 receptor is essential for the development of the metanephric kidney. <i>Developmental Biology</i> , <b>2009</b> , 335, 106-19	3.1	54
2	pulse2percept: A Python-based simulation framework for bionic vision		3
1	Sparse coding and dimensionality reduction in cortex		2