Randy Heiland

List of Publications by Year
in descending order

20 papers	**1,268** citations	623734 **14** h-index	996975 **15** g-index
29 all docs	**29** docs citations	**29** times ranked	**1738** citing authors

#	Article	IF	Citations
1	PhysiCell: An open source physics-based cell simulator for 3-D multicellular systems. PLoS Computational Biology, 2018, 14, e1005991.	3.2	303
2	A Review of Cell-Based Computational Modeling in Cancer Biology. JCO Clinical Cancer Informatics, 2019, 3, 1-13.	2.1	238
3	Extending Transfer Entropy Improves Identification of Effective Connectivity in a Spiking Cortical Network Model. PLoS ONE, 2011, 6, e27431.	2.5	178
4	PhysiBoSS: a multi-scale agent-based modelling framework integrating physical dimension and cell signalling. Bioinformatics, 2019, 35, 1188-1196.	4.1	88
5	High-throughput cancer hypothesis testing with an integrated PhysiCell-EMEWS workflow. BMC Bioinformatics, 2018, 19, 483.	2.6	54
6	MutDB services: interactive structural analysis of mutation data. Nucleic Acids Research, 2005, 33, W311-W314.	14.5	48
7	Visual Methods for Interpreting Optical Nonlinearity at the Molecular Level. Accounts of Chemical Research, 2007, 40, 953-960.	15.6	45
8	Web Service Infrastructure for Chemoinformatics. Journal of Chemical Information and Modeling, 2007, 47, 1303-1307.	5.4	41
9	Learning-accelerated discovery of immune-tumour interactions. Molecular Systems Design and Engineering, 2019, 4, 747-760.	3.4	41
10	MutDB: update on development of tools for the biochemical analysis of genetic variation. Nucleic Acids Research, 2007, 36, D815-D819.	14.5	34
11	Phase-space analysis of bursting behavior in Kolmogorov flow. Physica D: Nonlinear Phenomena, 1992, 58, 392-401.	2.8	30
12	NLOPredict: Visualization and data analysis software for nonlinear optics. Journal of Computational Chemistry, 2007, 28, 1996-2002.	3.3	30
13	kltool: A tool to analyze spatiotemporal complexity. Chaos, 1994, 4, 421-424.	2.5	24
14	Identification of similar regions of protein structures using integrated sequence and structure analysis tools. BMC Structural Biology, 2006, 6, 4.	2.3	21
15	xml2jupyter: Mapping parameters between XML and Jupyter widgets. Journal of Open Source Software, 2019, 4, 1408.	4.6	18
16	Integrity Protection for Scientific Workflow Data. , 2019, , .		7
17	Authentication and Authorization Considerations for a Multi-tenant Service. , 2015, , .		6
18	Visualizing cells and their connectivity graphs for CompuCell3D. , 2012, , .		2

#	Article	IF	Citations
19	Students' Use of Metacognitive Skills in Undergraduate Research Experiences in Computational Modeling. , 2019, , .		2
20	Supporting <i>Computational Apprenticeship</i> Through Educational and Software Infrastructure: A Case Study in aÂMathematical Oncology Research Lab. Primus, 2022, 32, 446-467.	0.5	0