

# Heather A Harrington

## 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.

34  
papers

960  
citations

14  
h-index

30  
g-index

37  
ext. papers

1,305  
ext. citations

6.5  
avg, IF

4.3  
L-index

#	Paper	IF	Citations
34	A blood atlas of COVID-19 defines hallmarks of disease severity and specificity.. <i>Cell</i> , <b>2022</b> , 185, 916-938, e58	36.8	17
33	Quantification of vascular networks in photoacoustic mesoscopy.. <i>Photoacoustics</i> , <b>2022</b> , 26, 100357	9	0
32	Multiparameter persistent homology landscapes identify immune cell spatial patterns in tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	5
31	Topological data analysis of task-based fMRI data from experiments on schizophrenia. <i>Journal of Physics Complexity</i> , <b>2021</b> , 2, 035006	1.8	3
30	Topological data analysis distinguishes parameter regimes in the Anderson-Chaplain model of angiogenesis. <i>PLoS Computational Biology</i> , <b>2021</b> , 17, e1009094	5	1
29	Grid diagrams as tools to investigate knot spaces and topoisomerase-mediated simplification of DNA topology. <i>Science Advances</i> , <b>2020</b> , 6, eaay1458	14.3	2
28	Coloured Noise from Stochastic Inflows in Reaction-Diffusion Systems. <i>Bulletin of Mathematical Biology</i> , <b>2020</b> , 82, 44	2.1	2
27	Joining and decomposing reaction networks. <i>Journal of Mathematical Biology</i> , <b>2020</b> , 80, 1683-1731	2	6
26	Geometric anomaly detection in data. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 19664-19669	11.5	5
25	Linear Compartmental Models: Input-Output Equations and Operations That Preserve Identifiability. <i>SIAM Journal on Applied Mathematics</i> , <b>2019</b> , 79, 1423-1447	1.8	8
24	Stratifying Multiparameter Persistent Homology. <i>SIAM Journal on Applied Algebra and Geometry</i> , <b>2019</b> , 3, 439-471	1.5	9
23	Tensor clustering with algebraic constraints gives interpretable groups of crosstalk mechanisms in breast cancer. <i>Journal of the Royal Society Interface</i> , <b>2019</b> , 16, 20180661	4.1	3
22	A Parameter-Free Model Comparison Test Using Differential Algebra. <i>Complexity</i> , <b>2019</b> , 2019, 1-15	1.6	2
21	Reduction of dimension for nonlinear dynamical systems. <i>Nonlinear Dynamics</i> , <b>2017</b> , 88, 715-734	5	7
20	Persistent homology of time-dependent functional networks constructed from coupled time series. <i>Chaos</i> , <b>2017</b> , 27, 047410	3.3	51
19	Nanog Fluctuations in Embryonic Stem Cells Highlight the Problem of Measurement in Cell Biology. <i>Biophysical Journal</i> , <b>2017</b> , 112, 2641-2652	2.9	13
18	Graph-facilitated resonant mode counting in stochastic interaction networks. <i>Journal of the Royal Society Interface</i> , <b>2017</b> , 14,	4.1	2

17	A roadmap for the computation of persistent homology. <i>EPJ Data Science</i> , <b>2017</b> , 6, 17	3.4	188
16	The role of the Hes1 crosstalk hub in Notch-Wnt interactions of the intestinal crypt. <i>PLoS Computational Biology</i> , <b>2017</b> , 13, e1005400	5	29
15	Algebraic Systems Biology: A Case Study for the Wnt Pathway. <i>Bulletin of Mathematical Biology</i> , <b>2016</b> , 78, 21-51	2.1	34
14	Role of seasonality on predator-prey-subsidy population dynamics. <i>Journal of Theoretical Biology</i> , <b>2016</b> , 396, 163-81	2.3	15
13	Numerical algebraic geometry for model selection and its application to the life sciences. <i>Journal of the Royal Society Interface</i> , <b>2016</b> , 13,	4.1	9
12	Parameter-free methods distinguish Wnt pathway models and guide design of experiments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 2652-7	11.5	23
11	Phosphorelay of non-orthodox two component systems functions through a bi-molecular mechanism in vivo: the case of ArcB. <i>Molecular BioSystems</i> , <b>2015</b> , 11, 1348-59		4
10	Nuclear to cytoplasmic shuttling of ERK promotes differentiation of muscle stem/progenitor cells. <i>Development (Cambridge)</i> , <b>2014</b> , 141, 2611-20	6.6	59
9	Epithelial-Mesenchymal Transition in Metastatic Cancer Cell Populations Affects Tumor Dormancy in a Simple Mathematical Model. <i>Biomedicines</i> , <b>2014</b> , 2, 384-402	4.8	4
8	Cellular compartments cause multistability and allow cells to process more information. <i>Biophysical Journal</i> , <b>2013</b> , 104, 1824-31	2.9	35
7	Commentary: Teach network science to teenagers. <i>Network Science</i> , <b>2013</b> , 1, 226-247	2.9	9
6	Clinical drug resistance linked to interconvertible phenotypic and functional states of tumor-propagating cells in multiple myeloma. <i>Blood</i> , <b>2013</b> , 121, 318-28	2.2	100
5	Parameter-free model discrimination criterion based on steady-state coplanarity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 15746-51	11.5	20
4	Skin barrier homeostasis in atopic dermatitis: feedback regulation of kallikrein activity. <i>PLoS ONE</i> , <b>2011</b> , 6, e19895	3.7	22
3	Bistability in apoptosis by receptor clustering. <i>PLoS Computational Biology</i> , <b>2010</b> , 6, e1000956	5	29
2	Coronary intraplaque hemorrhage evokes a novel atheroprotective macrophage phenotype. <i>American Journal of Pathology</i> , <b>2009</b> , 174, 1097-108	5.8	240
1	A blood atlas of COVID-19 defines hallmarks of disease severity and specificity		4