

Fred A Hamprecht

List of Publications by Year in descending order

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Version: 2024-02-01

38
papers

5,404
citations

331670

21
h-index

454955

30
g-index

44
all docs

44
docs citations

44
times ranked

9254
citing authors

#	ARTICLE	IF	CITATIONS
1	ilastik: interactive machine learning for (bio)image analysis. Nature Methods, 2019, 16, 1226-1232.	19.0	1,824
2	A comparison of random forest and its Gini importance with standard chemometric methods for the feature selection and classification of spectral data. BMC Bioinformatics, 2009, 10, 213.	2.6	804
3	ilastik: Interactive learning and segmentation toolkit. , 2011, , .		754
4	An objective comparison of cell-tracking algorithms. Nature Methods, 2017, 14, 1141-1152.	19.0	399
5	Imagining the future of bioimage analysis. Nature Biotechnology, 2016, 34, 1250-1255.	17.5	162
6	Accurate and versatile 3D segmentation of plant tissues at cellular resolution. ELife, 2020, 9, .	6.0	155
7	Multicut brings automated neurite segmentation closer to human performance. Nature Methods, 2017, 14, 101-102.	19.0	126
8	Automated Detection and Segmentation of Synaptic Contacts in Nearly Isotropic Serial Electron Microscopy Images. PLoS ONE, 2011, 6, e24899.	2.5	120
9	On Oblique Random Forests. Lecture Notes in Computer Science, 2011, , 453-469.	1.3	119
10	Toward Digital Staining using Imaging Mass Spectrometry and Random Forests. Journal of Proteome Research, 2009, 8, 3558-3567.	3.7	87
11	Three-dimensional immersive virtual reality for studying cellular compartments in 3D models from EM preparations of neural tissues. Journal of Comparative Neurology, 2016, 524, 23-38.	1.6	85
12	Correlative In Vivo 2 Photon and Focused Ion Beam Scanning Electron Microscopy of Cortical Neurons. PLoS ONE, 2013, 8, e57405.	2.5	79
13	Probabilistic image segmentation with closedness constraints. , 2011, , .		67
14	Experimental and computational analyses reveal that environmental restrictions shape HIV-1 spread in 3D cultures. Nature Communications, 2019, 10, 2144.	12.8	60
15	Multivariate feature selection and hierarchical classification for infrared spectroscopy: serum-based detection of bovine spongiform encephalopathy. Analytical and Bioanalytical Chemistry, 2007, 387, 1801-1807.	3.7	55
16	Conservation Tracking. , 2013, , .		52
17	Automated Detection of Synapses in Serial Section Transmission Electron Microscopy Image Stacks. PLoS ONE, 2014, 9, e87351.	2.5	49
18	A digital 3D reference atlas reveals cellular growth patterns shaping the Arabidopsis ovule. ELife, 2021, 10, .	6.0	49

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19	Semiautomated correlative 3D electron microscopy of in vivo imaged axons and dendrites. <i>Nature Protocols</i> , 2014, 9, 1354-1366.	12.0	45
20	Segmenting and Tracking Multiple Dividing Targets Using ilastik. <i>Advances in Anatomy, Embryology and Cell Biology</i> , 2016, 219, 199-229.	1.6	44
21	Automated estimation of tumor probability in prostate magnetic resonance spectroscopic imaging: Pattern recognition vs quantification. <i>Magnetic Resonance in Medicine</i> , 2007, 57, 150-159.	3.0	43
22	Seipin forms a flexible cage at lipid droplet formation sites. <i>Nature Structural and Molecular Biology</i> , 2022, 29, 194-202.	8.2	33
23	Mimicking the human expert: Pattern recognition for an automated assessment of data quality in MR spectroscopic images. <i>Magnetic Resonance in Medicine</i> , 2008, 59, 1457-1466.	3.0	30
24	End-to-End Learning of Decision Trees and Forests. <i>International Journal of Computer Vision</i> , 2020, 128, 997-1011.	15.6	28
25	Fusion moves for correlation clustering. , 2015, , .		23
26	Microscopy-based assay for semi-quantitative detection of SARS-CoV-2 specific antibodies in human sera. <i>BioEssays</i> , 2021, 43, e2000257.	2.5	22
27	Analysis of Single-Molecule Fluorescence Spectroscopic Data with a Markov-Modulated Poisson Process. <i>ChemPhysChem</i> , 2009, 10, 2486-2495.	2.1	18
28	Using spatial prior knowledge in the spectral fitting of MRS images. <i>NMR in Biomedicine</i> , 2012, 25, 1-13.	2.8	14
29	Temporal control of the integrated stress response by a stochastic molecular switch. <i>Science Advances</i> , 2022, 8, eabk2022.	10.3	13
30	Seeded watershed cut uncertainty estimators for guided interactive segmentation. , 2012, , .		12
31	A Generalized Successive Shortest Paths Solver for Tracking Dividing Targets. <i>Lecture Notes in Computer Science</i> , 2016, , 566-582.	1.3	7
32	Automated vs. Manual Pattern Recognition of 3D 1H MRSI Data of Patients with Prostate Cancer. <i>Academic Radiology</i> , 2012, 19, 675-684.	2.5	5
33	Three-dimensional immersive virtual reality for studying cellular compartments in 3D models from EM preparations of neural tissues. <i>Journal of Comparative Neurology</i> , 2016, 524, Spc1-Spc1.	1.6	3
34	Structured Regression Gradient Boosting. , 2016, , .		2
35	DiversePathsJ: diverse shortest paths for bioimage analysis. <i>Bioinformatics</i> , 2018, 34, 538-540.	4.1	2
36	Image-based supervision of a periodically working machine. <i>Pattern Analysis and Applications</i> , 2013, 16, 407-416.	4.6	1

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37	An object-oriented library for systematic training and comparison of classifiers for computer-assisted tumor diagnosis from MRSI measurements. <i>Computer Science - Research and Development</i> , 2011, 26, 65-85.	2.7	0
38	Gaussian process classification: singly versus doubly stochastic models, and new computational schemes. <i>Stochastic Environmental Research and Risk Assessment</i> , 2011, 25, 865-879.	4.0	0