

Ullrich Koethe

List of Publications by Year in descending order

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45
papers

3,905
citations

430874

18
h-index

377865

34
g-index

45
all docs

45
docs citations

45
times ranked

6741
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	llastik: Interactive learning and segmentation toolkit. , 2011, , .		754
3	Multicut brings automated neurite segmentation closer to human performance. Nature Methods, 2017, 14, 101-102.	19.0	126
4	Automated Detection and Segmentation of Synaptic Contacts in Nearly Isotropic Serial Electron Microscopy Images. PLoS ONE, 2011, 6, e24899.	2.5	120
5	On Oblique Random Forests. Lecture Notes in Computer Science, 2011, , 453-469.	1.3	119
6	Edge and Junction Detection with an Improved Structure Tensor. Lecture Notes in Computer Science, 2003, , 25-32.	1.3	96
7	Can Virtual Contrast Enhancement in Brain MRI Replace Gadolinium?. Investigative Radiology, 2019, 54, 653-660.	6.2	93
8	Graphical model for joint segmentation and tracking of multiple dividing cells. Bioinformatics, 2015, 31, 948-956.	4.1	75
9	DALSA: Domain Adaptation for Supervised Learning From Sparsely Annotated MR Images. IEEE Transactions on Medical Imaging, 2016, 35, 184-196.	8.9	68
10	Probabilistic image segmentation with closedness constraints. , 2011, , .		67
11	Globally Optimal Closed-Surface Segmentation for Connectomics. Lecture Notes in Computer Science, 2012, , 778-791.	1.3	50
12	Automated Detection of Synapses in Serial Section Transmission Electron Microscopy Image Stacks. PLoS ONE, 2014, 9, e87351.	2.5	49
13	Invertible networks or partons to detector and back again. SciPost Physics, 2020, 9, .	4.9	47
14	Segmenting and Tracking Multiple Dividing Targets Using ilastik. Advances in Anatomy, Embryology and Cell Biology, 2016, 219, 199-229.	1.6	44
15	BayesFlow: Learning Complex Stochastic Models With Invertible Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 1452-1466.	11.3	37
16	3D segmentation of SBFSEM images of neuropil by a graphical model over supervoxel boundaries. Medical Image Analysis, 2012, 16, 796-805.	11.6	35
17	The Mutex Watershed: Efficient, Parameter-Free Image Partitioning. Lecture Notes in Computer Science, 2018, , 571-587.	1.3	30
18	Learned Watershed: End-to-End Learning of Seeded Segmentation. , 2017, , .		25

#	ARTICLE	IF	CITATIONS
19	The Mutex Watershed and its Objective: Efficient, Parameter-Free Graph Partitioning. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 3724-3738.	13.9	23
20	An Efficient Fusion Move Algorithm for the Minimum Cost Lifted Multicut Problem. Lecture Notes in Computer Science, 2016, , 715-730.	1.3	21
21	A Discrete Chain Graph Model for 3d+t Cell Tracking with High Mis-detection Robustness. Lecture Notes in Computer Science, 2012, , 144-157.	1.3	21
22	OutbreakFlow: Model-based Bayesian inference of disease outbreak dynamics with invertible neural networks and its application to the COVID-19 pandemics in Germany. PLoS Computational Biology, 2021, 17, e1009472.	3.2	19
23	Tracking Indistinguishable Translucent Objects over Time Using Weakly Supervised Structured Learning. , 2014, , .		17
24	Towards end-to-end likelihood-free inference with convolutional neural networks. British Journal of Mathematical and Statistical Psychology, 2020, 73, 23-43.	1.4	17
25	Stellar parameter determination from photometry using invertible neural networks. Monthly Notices of the Royal Astronomical Society, 2020, 499, 5447-5485.	4.4	16
26	Automated tracing of myelinated axons and detection of the nodes of Ranvier in serial images of peripheral nerves. Journal of Microscopy, 2015, 259, 143-154.	1.8	15
27	SimpleSTORM: a fast, self-calibrating reconstruction algorithm for localization microscopy. Histochemistry and Cell Biology, 2014, 141, 613-627.	1.7	13
28	Seeded watershed cut uncertainty estimators for guided interactive segmentation. , 2012, , .		12
29	Learning to Segment Neurons with Non-local Quality Measures. Lecture Notes in Computer Science, 2013, 16, 419-427.	1.3	10
30	Inference of cosmic-ray source properties by conditional invertible neural networks. European Physical Journal C, 2022, 82, 1.	3.9	9
31	Emission-line diagnostics of H α regions using conditional invertible neural networks. Monthly Notices of the Royal Astronomical Society, 2022, 512, 617-647.	4.4	8
32	Asymmetric Cuts: Joint Image Labeling and Partitioning. Lecture Notes in Computer Science, 2014, , 199-211.	1.3	7
33	Amortized Bayesian Model Comparison With Evidential Deep Learning. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 4903-4917.	11.3	7
34	Measuring Young Stars in Space and Time. II. The Pre-main-sequence Stellar Content of N44. Astronomical Journal, 2021, 161, 257.	4.7	6
35	Learning to segment dense cell nuclei with shape prior. , 2012, , .		4
36	Weakly Supervised Learning of Image Partitioning Using Decision Trees with Structured Split Criteria. , 2013, , .		4

#	ARTICLE	IF	CITATIONS
37	Multiple Instance Learning with Response-Optimized Random Forests. , 2014, , .		4
38	Quality Classification of Microscopic Imagery with Weakly Supervised Learning. Lecture Notes in Computer Science, 2012, , 176-183.	1.3	4
39	Proof-reading guidance in cell tracking by sampling from tracking-by-assignment models. , 2015, , .		2
40	Measuring Young Stars in Space and Time. I. The Photometric Catalog and Extinction Properties of N44. Astronomical Journal, 2021, 161, 256.	4.7	2
41	Training Invertible Neural Networks as Autoencoders. Lecture Notes in Computer Science, 2019, , 442-455.	1.3	2
42	<title>SMART: system for segmentation matching and reconstruction</title>. , 1993, , .		1
43	Discovering Digital Tumor Signaturesâ€”Using Latent Code Representations to Manipulate and Classify Liver Lesions. Cancers, 2021, 13, 3108.	3.7	1
44	Geometric Analysis of 3D Electron Microscopy Data. Lecture Notes in Computer Science, 2012, , 93-108.	1.3	1
45	Characterizing the Role of a Single Coupling Layer in Affine Normalizing Flows. Lecture Notes in Computer Science, 2021, , 1-14.	1.3	0