Stefan Roth

List of Publications by Year
in descending order

62 papers	8,004 citations	623574 14 h-index	610775 24 g-index
64 all docs	64 docs citations	64 times ranked	5200 citing authors

#	Article	IF	Citations
1	A Database and Evaluation Methodology for Optical Flow. International Journal of Computer Vision, 2011, 92, 1-31.	10.9	1,565
2	Fields of Experts. International Journal of Computer Vision, 2009, 82, 205-229.	10.9	728
3	People-tracking-by-detection and people-detection-by-tracking. , 2008, , .		589
4	Pictorial structures revisited: People detection and articulated pose estimation. , 2009, , .		540
5	A Quantitative Analysis of Current Practices in Optical Flow Estimation and the Principles Behind Them. International Journal of Computer Vision, 2014, 106, 115-137.	10.9	476
6	Shrinkage Fields for Effective Image Restoration. , 2014, , .		361
7	Monocular 3D pose estimation and tracking by detection. , 2010, , .		359
8	Benchmarking Denoising Algorithms with Real Photographs. , 2017, , .		339
9	Iterative Residual Refinement for Joint Optical Flow and Occlusion Estimation. , 2019, , .		181
10	Fusion Moves for Markov Random Field Optimization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2010, 32, 1392-1405.	9.7	166
11	3D Scene Flow Estimation with a Piecewise Rigid Scene Model. International Journal of Computer Vision, 2015, 115, 1-28.	10.9	161
12	Multi-Target Tracking by Discrete-Continuous Energy Minimization. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 2054-2068.	9.7	159
13	Learning Optical Flow. Lecture Notes in Computer Science, 2008, , 83-97.	1.0	147
14	Detection- and Trajectory-Level Exclusion in Multiple Object Tracking. , 2013, , .		143
15	MOTChallenge: A Benchmark for Single-Camera Multiple Target Tracking. International Journal of Computer Vision, 2021, 129, 845-881.	10.9	139
16	Piecewise Rigid Scene Flow. , 2013, , .		137
17	On the Spatial Statistics of Optical Flow. International Journal of Computer Vision, 2007, 74, 33-50.	10.9	134
18	Efficient Belief Propagation with Learned Higher-Order Markov Random Fields. Lecture Notes in Computer Science, 2006, , 269-282.	1.0	116

#	Article	IF	Citations
19	FusionFlow: Discrete-continuous optimization for optical flow estimation. , 2008, , .		110
20	Discriminative Non-blind Deblurring. , 2013, , .		100
21	Single-Stage Semantic Segmentation From Image Labels. , 2020, , .		94
22	Lightweight Probabilistic Deep Networks. , 2018, , .		84
23	A generative perspective on MRFs in low-level vision. , 2010, , .		83
24	Vision based victim detection from unmanned aerial vehicles. , 2010, , .		73
25	3D scene flow estimation with a rigid motion prior. , 2011, , .		71
26	Learning People Detectors for Tracking in Crowded Scenes. , 2013, , .		68
27	MirrorFlow: Exploiting Symmetries in Joint Optical Flow and Occlusion Estimation. , 2017, , .		68
28	Self-Supervised Monocular Scene Flow Estimation. , 2020, , .		65
29	Challenges of Ground Truth Evaluation of Multi-target Tracking. , 2013, , .		64
30	Object Detection in Multi-view X-Ray Images. Lecture Notes in Computer Science, 2012, , 144-154.	1.0	55
31	An analytical formulation of global occlusion reasoning for multi-target tracking. , 2011, , .		53
32	Discriminative Appearance Models for Pictorial Structures. International Journal of Computer Vision, 2012, 99, 259-280.	10.9	53
33	Learning rotation-aware features: From invariant priors to equivariant descriptors. , 2012, , .		52
34	Monocular 3D scene understanding with explicit occlusion reasoning. , 2011, , .		51
35	Bayesian deblurring with integrated noise estimation. , 2011, , .		50
36	Pictorial structures revisited: People detection and articulated pose estimation. , 2009, , .		49

#	ARTICLE	IF	CITATIONS
37	Steerable Random Fields. , 2007, , .		45
38	Automatic discovery of meaningful object parts with latent CRFs. , 2010, , .		32
39	Discriminative structure learning of hierarchical representations for object detection. , 2009, , .		31
40	Normalized Blind Deconvolution. Lecture Notes in Computer Science, 2018, , 694-711.	1.0	24
41	Interleaved Regression Tree Field Cascades for Blind Image Deconvolution. , 2015, , .		19
42	Deep Video Deblurring: The Devil is in the Details. , 2019, , .		17
43	Denoising Archival Films using a Learned Bayesian Model. , 2006, , .		16
44	How Well Do Filter-Based MRFs Model Natural Images?. Lecture Notes in Computer Science, 2012, , 62-72.	1.0	16
45	Learning Spatially-Variant MAP Models for Non-blind Image Deblurring. , 2021, , .		15
46	Parametric Object Motion from Blur. , 2016, , .		14
47	Multi-view X-Ray R-CNN. Lecture Notes in Computer Science, 2019, , 153-168.	1.0	13
48	Actor-Critic Instance Segmentation. , 2019, , .		12
49	Localized Image Blur Removal through Non-parametric Kernel Estimation. , 2014, , .		11
50	Discrete-Continuous Optimization for Optical Flow Estimation. Lecture Notes in Computer Science, 2009, , 1-22.	1.0	11
51	A Discriminative Approach to Perspective Shape from Shading in Uncalibrated Illumination. Computers and Graphics, 2015, , .	1.4	7
52	Joint Wasserstein Autoencoders for Aligning Multimodal Embeddings. , 2019, , .		6
53	Registering Images to Untextured Geometry Using Average Shading Gradients. , 2015, , .		5
54	Cellâ€Based Optimization of Covalent Reversible Ketoamide Inhibitors Bridging the Unprimed to the Primed Site of the Proteasome Î²5 Subunit. ChemMedChem, 2019, 14, 2005-2022.	1.6	5

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55	A discriminative approach to perspective shape from shading in uncalibrated illumination. Computers and Graphics, 2015, 53, 72-81.	1.4	4
56	Privacy Preserving Multi-target Tracking. Lecture Notes in Computer Science, 2015, , 519-530.	1.0	3
57	Connecting non-quadratic variational models and MRFs. , 2011, , .		2
58	Discriminative structure learning of hierarchical representations for object detection. , 2009, , .		2
59	Sampling-Free Variational Inference for Neural Networks with Multiplicative Activation Noise. Lecture Notes in Computer Science, 2021, , 33-47.	1.0	2
60	Diverse Image Captioning withÂGrounded Style. Lecture Notes in Computer Science, 2021, , 421-436.	1.0	2
61	Normalizing Flows With Multi-Scale Autoregressive Priors. , 2020, , .		1
62	Learning Task-Specific Generalized Convolutions in the Permutohedral Lattice. Lecture Notes in Computer Science, 2019, , 345-359.	1.0	1