

Pietro Perona

List of Publications by Year in descending order

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Version: 2024-02-01

77
papers

18,974
citations

61984

43
h-index

110387

64
g-index

82
all docs

82
docs citations

82
times ranked

14802
citing authors

#	ARTICLE	IF	CITATIONS
1	Pedestrian Detection: An Evaluation of the State of the Art. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 743-761.	13.9	2,582
2	One-shot learning of object categories. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2006, 28, 594-611.	13.9	1,947
3	Fast Feature Pyramids for Object Detection. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 1532-1545.	13.9	1,685
4	Integral Channel Features. , 2009, , .		911
5	Pedestrian detection: A benchmark. , 2009, , .		909
6	Preattentive texture discrimination with early vision mechanisms. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1990, 7, 923.	1.5	814
7	Functional identification of an aggression locus in the mouse hypothalamus. Nature, 2011, 470, 221-226.	27.8	788
8	High-throughput ethomics in large groups of Drosophila. Nature Methods, 2009, 6, 451-457.	19.0	690
9	Rapid natural scene categorization in the near absence of attention. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9596-9601.	7.1	636
10	Robust Face Landmark Estimation under Occlusion. , 2013, , .		511
11	The Fastest Pedestrian Detector in the West. , 2010, , .		428
12	Automated image-based tracking and its application in ecology. Trends in Ecology and Evolution, 2014, 29, 417-428.	8.7	407
13	Cascaded pose regression. , 2010, , .		383
14	Toward a Science of Computational Ethology. Neuron, 2014, 84, 18-31.	8.1	366
15	Objects predict fixations better than early saliency. Journal of Vision, 2008, 8, 18-18.	0.3	363
16	Evaluation of Features Detectors and Descriptors based on 3D Objects. International Journal of Computer Vision, 2007, 73, 263-284.	15.6	339
17	Automated monitoring and analysis of social behavior in Drosophila. Nature Methods, 2009, 6, 297-303.	19.0	316
18	What do we perceive in a glance of a real-world scene?. Journal of Vision, 2007, 7, 10.	0.3	312

#	ARTICLE	IF	CITATIONS
19	Sleep-spindle detection: crowdsourcing and evaluating performance of experts, non-experts and automated methods. <i>Nature Methods</i> , 2014, 11, 385-392.	19.0	288
20	Tachykinin-Expressing Neurons Control Male-Specific Aggressive Arousal in <i>Drosophila</i> . <i>Cell</i> , 2014, 156, 221-235.	28.9	271
21	Computational Neuroethology: A Call to Action. <i>Neuron</i> , 2019, 104, 11-24.	8.1	271
22	Automated measurement of mouse social behaviors using depth sensing, video tracking, and machine learning. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, E5351-60.	7.1	248
23	Two Different Forms of Arousal in <i>Drosophila</i> Are Oppositely Regulated by the Dopamine D1 Receptor Ortholog DopR via Distinct Neural Circuits. <i>Neuron</i> , 2009, 64, 522-536.	8.1	246
24	Where is the sun?. <i>Nature Neuroscience</i> , 1998, 1, 183-184.	14.8	232
25	Visual Recognition with Humans in the Loop. <i>Lecture Notes in Computer Science</i> , 2010, , 438-451.	1.3	193
26	A common genetic target for environmental and heritable influences on aggressiveness in <i>Drosophila</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 5657-5663.	7.1	170
27	Optimal reward harvesting in complex perceptual environments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 5232-5237.	7.1	150
28	Improved Bird Species Recognition Using Pose Normalized Deep Convolutional Nets. , 2014, , .		148
29	Automated multi-day tracking of marked mice for the analysis of social behaviour. <i>Journal of Neuroscience Methods</i> , 2013, 219, 10-19.	2.5	133
30	Multiclass recognition and part localization with humans in the loop. , 2011, , .		122
31	Decomposition of human motion into dynamics-based primitives with application to drawing tasks. <i>Automatica</i> , 2003, 39, 2085-2098.	5.0	113
32	From Google Maps to a fine-grained catalog of street trees. <i>ISPRS Journal of Photogrammetry and Remote Sensing</i> , 2018, 135, 13-30.	11.1	104
33	Decoding Ventromedial Hypothalamic Neural Activity during Male Mouse Aggression. <i>Journal of Neuroscience</i> , 2014, 34, 5971-5984.	3.6	102
34	Behavioral Responses to a Repetitive Visual Threat Stimulus Express a Persistent State of Defensive Arousal in <i>Drosophila</i> . <i>Current Biology</i> , 2015, 25, 1401-1415.	3.9	98
35	Pedestrian detection: A benchmark. , 2009, , .		96
36	Why does natural scene categorization require little attention? Exploring attentional requirements for natural and synthetic stimuli. <i>Visual Cognition</i> , 2005, 12, 893-924.	1.6	94

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37	The Mouse Action Recognition System (MARS) software pipeline for automated analysis of social behaviors in mice. <i>ELife</i> , 2021, 10, .	6.0	94
38	Cataloging Public Objects Using Aerial and Street-Level Images “ Urban Trees. , 2016, , .		85
39	Recursive 3-D Visual Motion Estimation Using Subspace Constraints. <i>International Journal of Computer Vision</i> , 1997, 22, 235-259.	15.6	77
40	Detecting Social Actions of Fruit Flies. <i>Lecture Notes in Computer Science</i> , 2014, , 772-787.	1.3	71
41	Local Shape from Mirror Reflections. <i>International Journal of Computer Vision</i> , 2005, 64, 31-67.	15.6	65
42	Preattentive Perception of Elementary Three-dimensional Shapes. <i>Vision Research</i> , 1996, 36, 2515-2529.	1.4	57
43	Homo economicus in visual search. <i>Journal of Vision</i> , 2009, 9, 31-31.	0.3	57
44	Learning Object Categories From Internet Image Searches. <i>Proceedings of the IEEE</i> , 2010, 98, 1453-1466.	21.3	57
45	Inter-expert and intra-expert reliability in sleep spindle scoring. <i>Clinical Neurophysiology</i> , 2015, 126, 1548-1556.	1.5	57
46	Early computation of shape and reflectance in the visual system. <i>Nature</i> , 1996, 379, 165-168.	27.8	55
47	Measuring and Predicting Object Importance. <i>International Journal of Computer Vision</i> , 2011, 91, 59-76.	15.6	55
48	How Food Controls Aggression in <i>Drosophila</i> . <i>PLoS ONE</i> , 2014, 9, e105626.	2.5	55
49	3D Photography Using Shadows in Dual-Space Geometry. <i>International Journal of Computer Vision</i> , 1999, 35, 129-149.	15.6	53
50	3D Reconstruction by Shadow Carving: Theory and Practical Evaluation. <i>International Journal of Computer Vision</i> , 2007, 71, 305-336.	15.6	49
51	A Simple Strategy for Detecting Moving Objects during Locomotion Revealed by Animal-Robot Interactions. <i>Current Biology</i> , 2012, 22, 1344-1350.	3.9	49
52	The Ignorant Led by the Blind: A Hybrid Human“Machine Vision System for Fine-Grained Categorization. <i>International Journal of Computer Vision</i> , 2014, 108, 3.	15.6	48
53	Mice in a labyrinth show rapid learning, sudden insight, and efficient exploration. <i>ELife</i> , 2021, 10, .	6.0	48
54	Causal feature learning: an overview. <i>Behaviormetrika</i> , 2017, 44, 137-164.	1.3	37

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55	Indexing in large scale image collections: Scaling properties and benchmark. , 2011, , .		34
56	Hybrid Generative-Discriminative Visual Categorization. International Journal of Computer Vision, 2008, 77, 239-258.	15.6	32
57	Some Objects Are More Equal Than Others: Measuring and Predicting Importance. Lecture Notes in Computer Science, 2008, , 523-536.	1.3	32
58	Geocoding of trees from street addresses and street-level images. ISPRS Journal of Photogrammetry and Remote Sensing, 2020, 162, 125-136.	11.1	29
59	Shading and Stereo in Early Perception of Shape and Reflectance. Perception, 1997, 26, 519-529.	1.2	27
60	Local Analysis for 3D Reconstruction of Specular Surfaces â€” Part II. Lecture Notes in Computer Science, 2002, , 759-774.	1.3	26
61	What do reflections tell us about the shape of a mirror?. , 2004, , .		25
62	Vision of a Visipedia. Proceedings of the IEEE, 2010, 98, 1526-1534.	21.3	25
63	Computer Vision in the Operating Room: Opportunities and Caveats. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 2-10.	3.2	25
64	Non-Parametric Probabilistic Image Segmentation. , 2007, , .		22
65	Task Programming: Learning Data Efficient Behavior Representations. , 2021, , .		18
66	Learning slip behavior using automatic mechanical supervision. Proceedings - IEEE International Conference on Robotics and Automation, 2007, , .	0.0	14
67	PRIMITIVES FOR HUMAN MOTION: A DYNAMICAL APPROACH. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 25-30.	0.4	11
68	Online, Real-Time Tracking Using a Category-to-Individual Detector. Lecture Notes in Computer Science, 2014, , 361-376.	1.3	10
69	Visipedia circa 2015. Pattern Recognition Letters, 2016, 72, 15-24.	4.2	9
70	Recovering Local Shape of a Mirror Surface from Reflection of a Regular Grid. Lecture Notes in Computer Science, 2004, , 468-481.	1.3	9
71	Speed versus accuracy in visual search: Optimal performance and neural architecture. Journal of Vision, 2015, 15, 9.	0.3	6
72	Generalized regressive motion: a visual cue to collision. Bioinspiration and Biomimetics, 2016, 11, 046008.	2.9	6

#	ARTICLE	IF	CITATIONS
73	Far and Yet Close: Multiple Viewpoints for the Perfect Portrait. Art and Perception, 2013, 1, 105-120.	0.5	5
74	Unsupervised learning of categorical segments in image collections. , 2008, , .		4
75	Seeing the trees, the forest, and much more. Communications of the ACM, 2010, 53, 106-106.	4.5	4
76	Movemes for Modeling Biological Motion Perception. , 2004, , 143-170.		3
77	Quantized response times are a signature of a neuronal bottleneck in decision. Frontiers in Computational Neuroscience, 2014, 8, 42.	2.1	2