Barbara Caputo

List of Publications by Year
in descending order

117 papers	7,990 citations	201674 27 h-index	155660 55 g-index
122 all docs	122 docs citations	122 times ranked	5379 citing authors

#	ARTICLE	IF	CITATIONS
1	Pixel-by-Pixel Cross-Domain Alignment for Few-Shot Semantic Segmentation. , 2022, , .		11
2	Domain Generalization through Audio-Visual Relative Norm Alignment in First Person Action Recognition. , 2022, , .		15
3	Test-Time Adaptation forÂEgocentric Action Recognition. Lecture Notes in Computer Science, 2022, , 206-218.	1.3	3
4	A Contrastive Distillation Approach forÂIncremental Semantic Segmentation inÂAerial Images. Lecture Notes in Computer Science, 2022, , 742-754.	1.3	4
5	Learning Semantics forÂVisual Place Recognition Through Multi-scale Attention. Lecture Notes in Computer Science, 2022, , 454-466.	1.3	5
6	MultiDIAL: Domain Alignment Layers for (Multisource) Unsupervised Domain Adaptation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 4441-4452.	13.9	10
7	Inferring Latent Domains for Unsupervised Deep Domain Adaptation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, 43, 485-498.	13.9	17
8	Self-Supervised Learning Across Domains. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2021, PP, 1-1.	13.9	18
9	Self-Supervised Joint Encoding of Motion and Appearance for First Person Action Recognition. , 2021, , .		5
10	On the Challenges of Open World Recognition Under Shifting Visual Domains. IEEE Robotics and Automation Letters, 2021, 6, 604-611.	5.1	2
11	N-ROD: a Neuromorphic Dataset for Synthetic-to-Real Domain Adaptation. , 2021, , .		4
12	DA4Event: Towards Bridging the Sim-to-Real Gap for Event Cameras Using Domain Adaptation. IEEE Robotics and Automation Letters, 2021, 6, 6616-6623.	5.1	8
13	A Survey on Deep Visual Place Recognition. IEEE Access, 2021, 9, 19516-19547.	4.2	76
14	Unsupervised Domain Adaptation Through Inter-Modal Rotation for RGB-D Object Recognition. IEEE Robotics and Automation Letters, 2020, 5, 6631-6638.	5.1	17
15	Boosting Deep Open World Recognition by Clustering. IEEE Robotics and Automation Letters, 2020, 5, 5985-5992.	5.1	14
16	IDDA: A Large-Scale Multi-Domain Dataset for Autonomous Driving. IEEE Robotics and Automation Letters, 2020, 5, 5526-5533.	5.1	30
17	Modeling the Background for Incremental Learning in Semantic Segmentation. , 2020, , .		128
18	Boosting binary masks for multi-domain learning through affine transformations. Machine Vision and Applications, 2020, 31, 1.	2.7	3

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19	Gaze, visual, myoelectric, and inertial data of grasps for intelligent prosthetics. Scientific Data, 2020, 7, 43.	5.3	15
20	Towards Recognizing Unseen Categories in Unseen Domains. Lecture Notes in Computer Science, 2020, , 466-483.	1.3	32
21	Recurrent Convolutional Fusion for RGB-D Object Recognition. IEEE Robotics and Automation Letters, 2019, 4, 2878-2885.	5.1	24
22	Knowledge is Never Enough: Towards Web Aided Deep Open World Recognition. , 2019, , .		17
23	Hallucinating Agnostic Images to Generalize Across Domains. , 2019, , .		18
24	Domain Generalization by Solving Jigsaw Puzzles. , 2019, , .		389
25	AdaGraph: Unifying Predictive and Continuous Domain Adaptation Through Graphs. , 2019, , .		38
26	Adding New Tasks to a Single Network with Weight Transformations Using Binary Masks. Lecture Notes in Computer Science, 2019, , 180-189.	1.3	15
27	Towards Multi-source Adaptive Semantic Segmentation. Lecture Notes in Computer Science, 2019, , 292-301.	1.3	10
28	Domain Generalization with Domain-Specific Aggregation Modules. Lecture Notes in Computer Science, 2019, , 187-198.	1.3	34
29	Looking beyond appearances: Synthetic training data for deep CNNs in re-identification. Computer Vision and Image Understanding, 2018, 167, 50-62.	4.7	116
30	Robust Place Categorization With Deep Domain Generalization. IEEE Robotics and Automation Letters, 2018, 3, 2093-2100.	5.1	36
31	(DE)^{2}CO: Deep Depth Colorization. IEEE Robotics and Automation Letters, 2018, 3, 2386-2393.	5.1	21
32	From Source to Target and Back: Symmetric Bi-Directional Adaptive GAN. , 2018, , .		146
33	Boosting Domain Adaptation by Discovering Latent Domains. , 2018, , .		102
34	Kitting in the Wild through Online Domain Adaptation. , 2018, , .		37
35	Adaptive Deep Learning Through Visual Domain Localization. , 2018, , .		16
36	Best Sources Forward: Domain Generalization through Source-Specific Nets. , 2018, , .		59

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37	The Difficulty of Recognizing Grasps from sEMG during Activities of Daily Living. , 2018, , .		0
38	Learning Deep NBNN Representations for Robust Place Categorization. IEEE Robotics and Automation Letters, 2017, 2, 1794-1801.	5.1	26
39	On the Importance of Domain Adaptation in Texture Classification. Lecture Notes in Computer Science, 2017, , 380-390.	1.3	0
40	Scalable greedy algorithms for transfer learning. Computer Vision and Image Understanding, 2017, 156, 174-185.	4.7	8
41	Adaptive learning to speed-up control of prosthetic hands: A few things everybody should know. , 2017, 2017, 1130-1135.		9
42	Just DIAL: DomaIn Alignment Layers for Unsupervised Domain Adaptation. Lecture Notes in Computer Science, 2017, , 357-369.	1.3	27
43	Semi-automatic Training of an Object Recognition System in Scene Camera Data Using Gaze Tracking and Accelerometers. Lecture Notes in Computer Science, 2017, , 175-184.	1.3	5
44	Effect of clinical parameters on the control of myoelectric robotic prosthetic hands. Journal of Rehabilitation Research and Development, 2016, 53, 345-358.	1.6	49
45	When Naïve Bayes Nearest Neighbors Meet Convolutional Neural Networks. , 2016, , .		15
46	Learning the Roots of Visual Domain Shift. Lecture Notes in Computer Science, 2016, , 475-482.	1.3	17
47	Where Are We After Five Editions?: Robot Vision Challenge, a Competition that Evaluates Solutions for the Visual Place Classification Problem. IEEE Robotics and Automation Magazine, 2015, 22, 147-156.	2.0	10
48	Characterization of a Benchmark Database for Myoelectric Movement Classification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 73-83.	4.9	193
49	Transfer Learning Through Greedy Subset Selection. Lecture Notes in Computer Science, 2015, , 3-14.	1.3	9
50	Towards Learning Free Naive Bayes Nearest Neighbor-Based Domain Adaptation. Lecture Notes in Computer Science, 2015, , 320-331.	1.3	0
51	Stable myoelectric control of a hand prosthesis using non-linear incremental learning. Frontiers in Neurorobotics, 2014, 8, 8.	2.8	104
52	Multi-source Adaptive Learning for Fast Control of Prosthetics Hand. , 2014, , .		25
53	Scene Recognition with Naive Bayes Non-linear Learning. , 2014, , .		6
54	Classification of hand movements in amputated subjects by sEMG and accelerometers. , 2014, 2014, 3545-9.		31

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55	Natural control capabilities of robotic hands by hand amputated subjects. , 2014, 2014, 4362-5.		5
56	Learning to Learn, from Transfer Learning to Domain Adaptation: A Unifying Perspective. , 2014, , .		77
57	Learning Categories From Few Examples With Multi Model Knowledge Transfer. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 928-941.	13.9	142
58	ImageCLEF 2014: Overview and Analysis of the Results. Lecture Notes in Computer Science, 2014, , 192-211.	1.3	44
59	Movement Error Rate for Evaluation of Machine Learning Methods for sEMG-Based Hand Movement Classification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2014, 22, 735-744.	4.9	149
60	Electromyography data for non-invasive naturally-controlled robotic hand prostheses. Scientific Data, 2014, 1, 140053.	5.3	482
61	Improving Control of Dexterous Hand Prostheses Using Adaptive Learning. IEEE Transactions on Robotics, 2013, 29, 207-219.	10.3	70
62	From N to N+1: Multiclass Transfer Incremental Learning. , 2013, , .		75
63	Exploiting accelerometers to improve movement classification for prosthetics. , 2013, 2013, 6650476.		23
64	ImageCLEF 2013: The Vision, the Data and the Open Challenges. Lecture Notes in Computer Science, 2013, , 250-268.	1.3	18
65	Frustratingly Easy NBNN Domain Adaptation. , 2013, , .		55
66	Beyond Dataset Bias: Multi-task Unaligned Shared Knowledge Transfer. Lecture Notes in Computer Science, 2013, , 1-15.	1.3	11
67	On the challenge of classifying 52 hand movements from surface electromyography. , 2012, 2012, 4931-7.		84
68	Building the Ninapro database: A resource for the biorobotics community. , 2012, , .		161
69	Leveraging over prior knowledge for online learning of visual categories. , 2012, , .		11
70	Indoor Scene Recognition using Task and Saliency-driven Feature Pooling. , 2012, , .		8
71	DIRAC: Detection and Identification of Rare Audio-Visual Events. Studies in Computational Intelligence, 2012, , 3-35.	0.9	0
72	Towards a Quantitative Measure of Rareness. Studies in Computational Intelligence, 2012, , 129-136.	0.9	0

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73	Towards semi-supervised learning of semantic spatial concepts. , 2011, , .		6
74	Using Object Affordances to Improve Object Recognition. IEEE Transactions on Autonomous Mental Development, 2011, 3, 207-215.	1.6	60
75	Transferring activities: Updating human behavior analysis. , 2011, , .		14
76	Multiclass transfer learning from unconstrained priors. , 2011, , .		77
77	A Large-Scale Database of Images and Captions for Automatic Face Naming. , 2011, , .		5
78	The more you learn, the less you store: Memory-controlled incremental SVM for visual place recognition. Image and Vision Computing, 2010, 28, 1080-1097.	4.5	35
79	On-line independent support vector machines. Pattern Recognition, 2010, 43, 1402-1412.	8.1	57
80	Guest Editorial Representations and Architectures for Cognitive Systems. IEEE Transactions on Autonomous Mental Development, 2010, 2, 265-266.	1.6	1
81	Learning methods for melanoma recognition. International Journal of Imaging Systems and Technology, 2010, 20, 316-322.	4.1	11
82	A realistic benchmark for visual indoor place recognition. Robotics and Autonomous Systems, 2010, 58, 81-96.	5.1	44
83	Classifying materials in the real world. Image and Vision Computing, 2010, 28, 150-163.	4.5	90
84	Multi-modal Semantic Place Classification. International Journal of Robotics Research, 2010, 29, 298-320.	8.5	121
85	Object recognition using visuo-affordance maps. , 2010, , .		4
86	Safety in numbers: Learning categories from few examples with multi model knowledge transfer. , 2010, , .		147
87	Overview of the First Workshop on Medical Content–Based Retrieval for Clinical Decision Support at MICCAI 2009. Lecture Notes in Computer Science, 2010, , 1-17.	1.3	9
88	Online-batch strongly convex Multi Kernel Learning. , 2010, , .		35
89	OM-2: An online multi-class Multi-Kernel Learning algorithm Luo Jie. , 2010, , .		7
90	An Online Framework for Learning Novel Concepts over Multiple Cues. Lecture Notes in Computer Science, 2010, , 269-280.	1.3	8

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91	The Robot Vision Task. The Kluwer International Series on Information Retrieval, 2010, , 185-198.	1.0	5
92	Overview of the CLEF 2009 Robot Vision Track. Lecture Notes in Computer Science, 2010, , 110-119.	1.3	12
93	Overview of the ImageCLEF@ICPR 2010 Robot Vision Track. Lecture Notes in Computer Science, 2010, , 171-179.	1.3	5
94	COLD: The CoSy Localization Database. International Journal of Robotics Research, 2009, 28, 588-594.	8.5	109
95	You live, you learn, you forget: Continuous learning of visual places with a forgetting mechanism. , 2009, , .		4
96	Model adaptation with least-squares SVM for adaptive hand prosthetics. , 2009, , .		54
97	A theoretical framework for transfer of knowledge across modalities in artificial and biological systems. , 2009, , .		3
98	An SVM Confidence-Based Approach to Medical Image Annotation. Lecture Notes in Computer Science, 2009, , 696-703.	1.3	8
99	The more you know, the less you learn: from knowledge transfer to one-shot learning of object categories. , 2009, , .		49
100	Towards a Theoretical Framework for Learning Multi-modal Patterns for Embodied Agents. Lecture Notes in Computer Science, 2009, , 239-248.	1.3	3
101	Discriminative cue integration for medical image annotation. Pattern Recognition Letters, 2008, 29, 1996-2002.	4.2	68
102	Towards robust place recognition for robot localization. , 2008, , .		63
103	The projectron. , 2008, , .		71
104	SVM-based discriminative accumulation scheme for place recognition. , 2008, , .		37
105	The DIRAC AWEAR audio-visual platform for detection of unexpected and incongruent events. , 2008, , .		2
106	Object Category Detection Using Audio-Visual Cues. , 2008, , 539-548.		2
107	Cue Integration for Medical Image Annotation. Lecture Notes in Computer Science, 2008, , 577-584.	1.3	1
108	Confidence-based cue integration for visual place recognition. , 2007, , .		42

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109	Incremental learning for place recognition in dynamic environments. , 2007, , .		67
110	Local velocity-adapted motion events for spatio-temporal recognition. Computer Vision and Image Understanding, 2007, 108, 207-229.	4.7	118
111	A spin glass model of a Markov random field. International Journal of Imaging Systems and Technology, 2006, 16, 181-188.	4.1	2
112	A Discriminative Approach to Robust Visual Place Recognition. , 2006, , .		67
113	Integrating representative and discriminant models for object category detection. , 2005, , .		86
114	Class-specific material categorisation. , 2005, , .		186
115	On the Significance of Real-World Conditions for Material Classification. Lecture Notes in Computer Science, 2004, , 253-266.	1.3	182
116	Recognizing human actions: a local SVM approach. , 2004, , .		2,346
117	<title>Digital mammography: a weak continuity texture representation for detection of microcalcifications</title>. , 2001, , .		0