

Shih-Fu Chang

List of Publications by Year in descending order

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153
papers

7,095
citations

318942

23
h-index

325983

40
g-index

153
all docs

153
docs citations

153
times ranked

4703
citing authors

#	ARTICLE	IF	CITATIONS
1	Augmentation Invariant and Instance Spreading Feature for Softmax Embedding. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 924-939.	9.7	74
2	Discovering Image Manipulation History by Pairwise Relation and Forensics Tools. IEEE Journal on Selected Topics in Signal Processing, 2020, 14, 1012-1023.	7.3	14
3	One-Shot Learning for Function-Specific Region Segmentation in Mouse Brain. , 2019, , .		0
4	Unsupervised Embedding Learning via Invariant and Spreading Instance Feature. , 2019, , .		263
5	Model-Driven Feedforward Prediction for Manipulation of Deformable Objects. IEEE Transactions on Automation Science and Engineering, 2018, 15, 1621-1638.	3.4	23
6	Exploiting Feature and Class Relationships in Video Categorization with Regularized Deep Neural Networks. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 352-364.	9.7	239
7	Modeling Multimodal Clues in a Hybrid Deep Learning Framework for Video Classification. IEEE Transactions on Multimedia, 2018, 20, 3137-3147.	5.2	97
8	Deep Image Set Hashing. , 2017, , .		9
9	Learning Spread-Out Local Feature Descriptors. , 2017, , .		78
10	3D shape retrieval using a single depth image from low-cost sensors. , 2016, , .		6
11	Regrasping and unfolding of garments using predictive thin shell modeling. , 2015, , .		38
12	New insights into Laplacian similarity search. , 2015, , .		2
13	Attributes and categories for generic instance search from one example. , 2015, , .		23
14	Super Fast Event Recognition in Internet Videos. IEEE Transactions on Multimedia, 2015, 17, 1174-1186.	5.2	39
15	Assistive Image Comment Robotâ€™s A Novel Mid-Level Concept-Based Representation. IEEE Transactions on Affective Computing, 2015, 6, 298-311.	5.7	19
16	EventNet. , 2015, , .		94
17	Video Event Detection by Inferring Temporal Instance Labels. , 2014, , .		78
18	Predicting Evoked Emotions in Video. , 2014, , .		9

#	ARTICLE	IF	CITATIONS
19	Real-time pose estimation of deformable objects using a volumetric approach. , 2014, , .		43
20	Discovering joint audio—visual codewords for video event detection. Machine Vision and Applications, 2014, 25, 33-47.	1.7	35
21	High-level event recognition in unconstrained videos. International Journal of Multimedia Information Retrieval, 2013, 2, 73-101.	3.6	126
22	Sample-Specific Late Fusion for Visual Category Recognition. , 2013, , .		55
23	Label Propagation from ImageNet to 3D Point Clouds. , 2013, , .		25
24	Large-Scale Video Hashing via Structure Learning. , 2013, , .		60
25	Robust Object Co-detection. , 2013, , .		25
26	Hash Bit Selection: A Unified Solution for Selection Problems in Hashing. , 2013, , .		74
27	Robust late fusion with rank minimization. , 2012, , .		36
28	Supervised hashing with kernels. , 2012, , .		343
29	Robust visual domain adaptation with low-rank reconstruction. , 2012, , .		73
30	Segmentation using superpixels: A bipartite graph partitioning approach. , 2012, , .		69
31	Robust and Scalable Graph-Based Semisupervised Learning. Proceedings of the IEEE, 2012, 100, 2624-2638.	16.4	159
32	Identification of fluid and substrate chemistry based on automatic pattern recognition of stains. Analytical Methods, 2012, 4, 50-57.	1.3	20
33	Fast Semantic Diffusion for Large-Scale Context-Based Image and Video Annotation. IEEE Transactions on Image Processing, 2012, 21, 3080-3091.	6.0	41
34	Towards Optimal Discriminating Order for Multiclass Classification. , 2011, , .		3
35	Noise resistant graph ranking for improved web image search. , 2011, , .		55
36	Consumer video understanding. , 2011, , .		219

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37	Modeling Scene and Object Contexts for Human Action Retrieval With Few Examples. IEEE Transactions on Circuits and Systems for Video Technology, 2011, 21, 674-681.	5.6	25
38	Camera Response Functions for Image Forensics: An Automatic Algorithm for Splicing Detection. IEEE Transactions on Information Forensics and Security, 2010, 5, 816-825.	4.5	82
39	In a Blink of an Eye and a Switch of a Transistor: Cortically Coupled Computer Vision. Proceedings of the IEEE, 2010, 98, 462-478.	16.4	126
40	Near Duplicate Identification With Spatially Aligned Pyramid Matching. IEEE Transactions on Circuits and Systems for Video Technology, 2010, 20, 1068-1079.	5.6	27
41	Label diagnosis through self tuning for web image search. , 2009, , .		14
42	Short-term audio-visual atoms for generic video concept classification. , 2009, , .		45
43	Identifying and prefiltering images. IEEE Signal Processing Magazine, 2009, 26, 49-58.	4.6	8
44	Domain adaptive semantic diffusion for large scale context-based video annotation. , 2009, , .		21
45	Robust multi-class transductive learning with graphs. , 2009, , .		84
46	Muti-scale temporal segmentation and outlier detection in sensor networks. , 2009, , .		1
47	Robust multi-class transductive learning with graphs. , 2009, , .		2
48	Label diagnosis through self tuning forweb image search. , 2009, , .		0
49	Quality-Optimized and Secure End-to-End Authentication for Media Delivery. Proceedings of the IEEE, 2008, 96, 97-111.	16.4	21
50	Query-Adaptive Fusion for Multimodal Search. Proceedings of the IEEE, 2008, 96, 567-588.	16.4	32
51	Cross-domain learning methods for high-level visual concept classification. , 2008, , .		84
52	Semi-supervised distance metric learning for Collaborative Image Retrieval. , 2008, , .		98
53	Statistical fusion of multiple cues for image tampering detection. , 2008, , .		16
54	Fast kernel learning for spatial pyramid matching. , 2008, , .		5

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55	Near duplicate image identification with patially Aligned Pyramid Matching. , 2008, , .		9
56	Active microscopic cellular image annotation by superposable graph transduction with imbalanced labels. , 2008, , .		14
57	Visual Event Recognition in News Video using Kernel Methods with Multi-Level Temporal Alignment. , 2007, , .		33
58	Image Splicing Detection using Camera Response Function Consistency and Automatic Segmentation. , 2007, , .		80
59	DYNAMIC LOCAL TRACING FOR 3D AXON CURVILINEAR STRUCTURE DETECTION FROM MICROSCOPIC IMAGE STACK. , 2007, , .		12
60	Context-Based Concept Fusion with Boosted Conditional Random Fields. , 2007, , .		56
61	Recent Advances and Open Issues of Digital Image/Video Search. , 2007, , .		2
62	Element Rearrangement for Tensor-Based Subspace Learning. , 2007, , .		16
63	Reranking Methods for Visual Search. IEEE MultiMedia, 2007, 14, 14-22.	1.5	64
64	Using Geometry Invariants for Camera Response Function Estimation. , 2007, , .		52
65	Visual Event Detection using Multi-Dimensional Concept Dynamics. , 2006, , .		48
66	Topic Tracking Across Broadcast News Videos with Visual Duplicates and Semantic Concepts. , 2006, , .		43
67	Active Context-Based Concept Fusionwith Partial User Labels. , 2006, , .		10
68	Detecting Image Splicing using Geometry Invariants and Camera Characteristics Consistency. , 2006, , .		208
69	A Robust and Secure Media Signature Scheme for JPEG Images. Journal of Signal Processing Systems, 2005, 41, 305-317.	1.0	18
70	A CRYPTO SIGNATURE SCHEME FOR IMAGE AUTHENTICATION OVER WIRELESS CHANNEL. International Journal of Image and Graphics, 2005, 05, 135-148.	1.2	22
71	Video Adaptation: Concepts, Technologies, and Open Issues. Proceedings of the IEEE, 2005, 93, 148-158.	16.4	158
72	Robust digital signature for multimedia authentication:a summary. IEEE Circuits and Systems Magazine, 2003, 3, 23-26.	2.6	11

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73	Content-adaptive utility-based video adaptation. , 2003, , .		12
74	Unsupervised discovery of multilevel statistical video structures using hierarchical hidden Markov models. , 2003, , .		15
75	A statistical framework for fusing mid-level perceptual features in news story segmentation. , 2003, , .		12
76	Structure analysis of soccer video with hidden Markov models. , 2002, , .		160
77	Overview of the MPEG-7 standard. IEEE Transactions on Circuits and Systems for Video Technology, 2001, 11, 688-695.	5.6	373
78	Algorithms and system for segmentation and structure analysis in soccer video. , 2001, , .		82
79	Condensing computable scenes using visual complexity and film syntax analysis. , 2001, , .		19
80	Introduction to the special issue on MPEG-7. IEEE Transactions on Circuits and Systems for Video Technology, 2001, 11, 685-687.	5.6	11
81	A conceptual framework and empirical research for classifying visual descriptors. Journal of the Association for Information Science and Technology, 2001, 52, 938-947.	2.6	49
82	A robust image authentication method distinguishing JPEG compression from malicious manipulation. IEEE Transactions on Circuits and Systems for Video Technology, 2001, 11, 153-168.	5.6	454
83	Structure analysis of sports video using domain models. , 2001, , .		112
84	A practical methodology for guaranteeing quality of service for video-on-demand. IEEE Transactions on Circuits and Systems for Video Technology, 2000, 10, 166-178.	5.6	7
85	Video-server retrieval scheduling and resource reservation for variable bit rate scalable video. IEEE Transactions on Circuits and Systems for Video Technology, 2000, 10, 460-474.	5.6	9
86	Region feature based similarity searching of semantic video objects. , 1999, , .		1
87	Integrated spatial and feature image query. Multimedia Systems, 1999, 7, 129-140.	3.0	83
88	Content-Processing for Video Browsing, Retrieval, and Editing. Multimedia Systems, 1999, 7, 255-255.	3.0	2
89	Searching and editing MPEG-compressed video in a distributed online environment. Multimedia Systems, 1999, 7, 282-293.	3.0	4
90	Next-generation content representation, creation, and searching for new-media applications in education. Proceedings of the IEEE, 1998, 86, 884-904.	16.4	47

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91	Columbia digital news project: an environment for briefing and search over multimedia information. International Journal on Digital Libraries, 1998, 1, 377-385.	1.1	12
92	A fully automated content-based video search engine supporting spatiotemporal queries. IEEE Transactions on Circuits and Systems for Video Technology, 1998, 8, 602-615.	5.6	293
93	Motion-adapted content-based temporal scalability in very low bitrate video coding. , 1997, , .		0
94	Visual information retrieval from large distributed online repositories. Communications of the ACM, 1997, 40, 63-71.	3.3	152
95	A highly efficient system for automatic face region detection in MPEG video. IEEE Transactions on Circuits and Systems for Video Technology, 1997, 7, 615-628.	5.6	235
96	DAVIC and Interoperability Experiments. Multimedia Tools and Applications, 1997, 5, 119-132.	2.6	4
97	Columbia's VoD and Multimedia Research Testbed with Heterogeneous Network Support. Multimedia Tools and Applications, 1997, 5, 171-184.	2.6	12
98	Frequency and spatially adaptive wavelet packets. , 0, , .		10
99	A crypto signature scheme for image authentication over wireless channel. , 0, , .		0
100	Compressed-domain techniques for image/video indexing and manipulation. , 0, , .		60
101	Bi-directional object-based coding in video compression at very low bitrate. , 0, , .		1
102	Automated binary texture feature sets for image retrieval. , 0, , .		109
103	Video server retrieval scheduling for variable bit rate scalable video. , 0, , .		12
104	Local color and texture extraction and spatial query. , 0, , .		41
105	Hybrid block-based/segment-based video compression at very low bit rate. , 0, , .		0
106	A content based video traffic model using camera operations. , 0, , .		5
107	Buffer control techniques for compressed-domain video editing. , 0, , .		4
108	Exploring image functionalities in WWW applications development of image/video search and editing engines. , 0, , .		5

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109	Spatio-temporal video search using the object based video representation. , 0, , .		44
110	Enhancing image search engines in visual information environments. , 0, , .		2
111	A distributed system for editing and browsing compressed video over the network. , 0, , .		4
112	Hierarchical global motion estimation/compensation in low bitrate video coding. , 0, , .		8
113	WebClip: a WWW video editing/browsing system. , 0, , .		3
114	Columbia Digital News System. An environment for briefing and search over multimedia information. , 0, , .		3
115	Joint adaptive space and frequency basis selection. , 0, , .		6
116	Content-based dynamic resource allocation for VBR video in bandwidth limited networks. , 0, , .		2
117	VideoQ: a fully automated video retrieval system using motion sketches. , 0, , .		6
118	Content-based dynamic network bandwidth allocation. , 0, , .		0
119	Embedding visible video watermarks in the compressed domain. , 0, , .		47
120	Discovering recurrent visual semantics in consumer photographs. , 0, , .		7
121	Structural and semantic analysis of video. , 0, , .		18
122	Principles and applications of content-aware video communication. , 0, , .		6
123	Image retrieval with sketches and compositions. , 0, , .		8
124	Experiments in constructing belief networks for image classification systems. , 0, , .		1
125	Validation experiments on structural, conceptual, collection, and access description schemes for MPEG-7. , 0, , .		1
126	A knowledge engineering approach for image classification based on probabilistic reasoning systems. , 0, , .		8

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127	Real-time content-based adaptive streaming of sports videos. , 0, , .		32
128	Constrained utility maximization for generating visual skims. , 0, , .		23
129	Concepts and Techniques for Indexing Visual Semantics. , 0, , 497-565.		3
130	Zero-error information hiding capacity of digital images. , 0, , .		23
131	Long-term moving object segmentation and tracking using spatio-temporal consistency. , 0, , .		9
132	Semantic knowledge construction from annotated image collections. , 0, , .		24
133	Perceptual knowledge construction from annotated image collections. , 0, , .		19
134	Semi-fragile image authentication using generic wavelet domain features and ECC. , 0, , .		20
135	Echocardiogram videos: summarization, temporal segmentation and browsing. , 0, , .		7
136	General and domain-specific techniques for detecting and recognizing superimposed text in video. , 0, , .		28
137	Video skims: taxonomies and an optimal generation framework. , 0, , .		4
138	A Bayesian framework for fusing multiple word knowledge models in videotext recognition. , 0, , .		6
139	Extraction, description and application of multimedia using MPEG-7. , 0, , .		6
140	Feature selection for unsupervised discovery of statistical temporal structures in video. , 0, , .		4
141	Blind detection of photomontage using higher order statistics. , 0, , .		45
142	Understanding and modeling user interests in consumer videos. , 0, , .		5
143	Color-mood analysis of films based on syntactic and psychological models. , 0, , .		5
144	Subjective preference of spatio-temporal rate in video adaptation using multi-dimensional scalable coding. , 0, , .		19

#	ARTICLE	IF	CITATIONS
145	Automatic view recognition in echocardiogram videos using parts-based representation. , 0, , .		30
146	Generative, discriminative, and ensemble learning on multi-modal perceptual fusion toward news video story segmentation. , 0, , .		17
147	Learning to Detect Scene Text Using a Higher-Order MRF with Belief Propagation. , 0, , .		20
148	A Framework for Sub-Window Shot Detection. , 0, , .		1
149	Combining Text and Audio-Visual Features in Video Indexing. , 0, , .		14
150	Commercial Detection in Heterogeneous Video Streams Using Fused Multi-Modal and Temporal Features. , 0, , .		19
151	Complexity Adaptive H.264 Encoding for Light Weight Streams. , 0, , .		11
152	A Generative-Discriminative Hybrid Method for Multi-View Object Detection. , 0, , .		6
153	Algorithms and system for segmentation and structure analysis in soccer video. , 0, , .		1