Lap-Pui Chau

List of Publications by Year in Descending Order

126 papers	2,027 citations	20 h-index	40 g-index
184 ext. papers	2,634 ext. citations	4.6 avg, IF	5.33 L-index

#	Paper	IF	Citations
126	Convolutional Neural Networks With Dynamic Regularization. *IEEE Transactions on Neural Networks and Learning Systems*, **2021**, 32, 2299-2304	10.3	5
125	A Self-Training Approach for Point-Supervised Object Detection and Counting in Crowds. *IEEE Transactions on Image Processing*, **2021**, 30, 2876-2887	8.7	18
124	Deep Spatial-angular Regularization for Light Field Imaging, Denoising, and Super-resolution. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, **2021**, PP,	13.3	5
123	. *IEEE Transactions on Intelligent Transportation Systems*, **2021**, 1-13	6.1	2
122	Deep Spatial-Angular Regularization for Compressive Light Field Reconstruction over Coded Apertures. *Lecture Notes in Computer Science*, **2020**, 278-294	0.9	11
121	Remote detection of idling cars using infrared imaging and deep networks. *Neural Computing and Applications*, **2020**, 32, 3047-3057	4.8	2
120	Convolutional Three-Stream Network Fusion for Driver Fatigue Detection from Infrared Videos **2019**,		2
119	Object Counting in Video Surveillance Using Multi-scale Density Map Regression **2019**,		2
118	**2019**,		3
117	Vehicle Tracking Using Deep SORT with Low Confidence Track Filtering **2019**,		22
116	. *IEEE Transactions on Circuits and Systems for Video Technology*, **2019**, 29, 517-530	6.4	36
115	Deepsea video descattering. *Multimedia Tools and Applications*, **2019**, 78, 28919-28929	2.5	2
114	Simultaneous Spatial and Spectral Low-Rank Representation of Hyperspectral Images for Classification. *IEEE Transactions on Geoscience and Remote Sensing*, **2018**, 56, 2872-2886	8.1	30
113	Single Underwater Image Restoration Using Adaptive Attenuation-Curve Prior. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2018**, 65, 992-1002	3.9	50
112	. *IEEE Transactions on Multimedia*, **2018**, 20, 1656-1671	6.6	14
111	Light Field Compression With Disparity-Guided Sparse Coding Based on Structural Key Views. *IEEE Transactions on Image Processing*, **2018**, 27, 314-324	8.7	44
110	Reflection Removal on Single Light Field Capture Using Focus Manipulation. *IEEE Transactions on Computational Imaging*, **2018**, 4, 562-572	4.5	7

109	Idling Car Detection with ConvNets in Infrared Image Sequences **2018**,		2
108	Robust Video Content Alignment and Compensation for Rain Removal in a CNN Framework **2018**,		70
107	Light Field Denoising via Anisotropic Parallax Analysis in a CNN Framework. *IEEE Signal Processing Letters*, **2018**, 25, 1403-1407	3.2	25
106	Accurate Light Field Depth Estimation With Superpixel Regularization Over Partially Occluded Regions. *IEEE Transactions on Image Processing*, **2018**, 27, 4889-4900	8.7	53
105	. *IEEE Transactions on Circuits and Systems for Video Technology*, **2017**, 27, 1043-1054	6.4	22
104	Light Field Compressed Sensing Over a Disparity-Aware Dictionary. *IEEE Transactions on Circuits and Systems for Video Technology*, **2017**, 27, 855-865	6.4	13
103	Lattice-Support repetitive local feature detection for visual search. *Pattern Recognition Letters*, **2017**, 98, 123-129	4.7	
102	**2017**,		15
101	Edge-preserving rain removal for light field images based on RPCA **2017**,		3
100	Reflection removal based on single light field capture **2017**,		11
99	Depth video-based two-stream convolutional neural networks for driver fatigue detection **2017**,		9
98	Single underwater image restoration using attenuation-curve prior **2017**,		6
97	Facial Position and Expression-Based Human-Computer Interface for Persons With Tetraplegia. *IEEE Journal of Biomedical and Health Informatics*, **2016**, 20, 915-924	7.2	19
96	Robust laplacian matrix learning for smooth graph signals **2016**,		3
95	Sparse two-dimensional singular value decomposition **2016**,		1
94	Light field depth from multi-scale particle filtering **2016**,		1
93	Underwater image restoration based on contrast enhancement **2016**,		12
92	Graph-based transform for data decorrelation **2016**,		5

91	**2016**,		1
90	Low-latency compression of mocap data using learned spatial decorrelation transform. *Computer Aided Geometric Design*, **2016**, 43, 211-225	1.2	7
89	Compressing 3-D Human Motions via Keyframe-Based Geometry Videos. *IEEE Transactions on Circuits and Systems for Video Technology*, **2015**, 25, 51-62	6.4	19
88	Motion capture data recovery using skeleton constrained singular value thresholding. *Visual Computer*, **2015**, 31, 1521-1532	2.3	10
87	Human Motion Capture Data Tailored Transform Coding. *IEEE Transactions on Visualization and Computer Graphics*, **2015**, 21, 848-59	4	22
86	Fall detection based on body part tracking using a depth camera. *IEEE Journal of Biomedical and Health Informatics*, **2015**, 19, 430-9	7.2	150
85	Reordering-based transform for compressing human motion capture data **2015**,		1
84	Underwater image color correction based on surface reflectance statistics **2015**,		1
83	Multiscale Dictionary Learning via Cross-Scale Cooperative Learning and Atom Clustering for Visual Signal Processing. *IEEE Transactions on Circuits and Systems for Video Technology*, **2015**, 25, 1457-1468	6.4	4
82	A rain pixel recovery algorithm for videos with highly dynamic scenes. *IEEE Transactions on Image Processing*, **2014**, 23, 1097-104	8.7	44
81	Restoring corrupted motion capture data via jointly low-rank matrix completion **2014**,		4
80	Scalable and Compact Representation for Motion Capture Data Using Tensor Decomposition. *IEEE Signal Processing Letters*, **2014**, 21, 255-259	3.2	13
79	. *IEEE Transactions on Circuits and Systems for Video Technology*, **2014**, 24, 1541-1553	6.4	19
78	Dynamic scene rain removal for moving cameras **2014**,		4
77	Single Viewpoint Image-Driven Simplification. *International Journal of Image and Graphics*, **2014**, 14, 1450008	0.9	
76	Human Computer Interface for Quadriplegic People Based on Face Position/gesture Detection **2014**,		2
75	Low-rank based compact representation of motion capture data **2014**,		3
74	A novel compression framework for 3D time-varying meshes **2014**,		4

73	Low Power Motion Estimation Based on Probabilistic Computing. *IEEE Transactions on Circuits and Systems for Video Technology*, **2014**, 24, 1-14	6.4	1
72	Rate-Distortion Model Based Bit Allocation for 3-D Facial Compression Using Geometry Video. *IEEE Transactions on Circuits and Systems for Video Technology*, **2013**, 23, 1537-1541	6.4	6
71	Joint Rate Allocation of Stereoscopic 3D Videos in Next-Generation Broadcast Applications. *IEEE Transactions on Broadcasting*, **2013**, 59, 445-454	4.7	5
70	Human motion capture data recovery via trajectory-based sparse representation **2013**,		9
69	Human motion capture data recovery using trajectory-based matrix completion. *Electronics Letters*, **2013**, 49, 752-754	1.1	18
68	An enhanced window-variant dark channel prior for depth estimation using single foggy image **2013**,		3
67	Expression-invariant and sparse representation for mesh-based compression for 3-D face models **2013**,		1
66	Consistent Video Quality Control in Scalable Video Coding Using Dependent Distortion Quantization Model. *IEEE Transactions on Broadcasting*, **2013**, 59, 717-724	4.7	9
65	Fall detection based on skeleton extraction **2012**,		12
64	Joint Rate Allocation for Statistical Multiplexing in Video Broadcast Applications. *IEEE Transactions on Broadcasting*, **2012**, 58, 417-427	4.7	8
63	Dynamic 3-D facial compression using low rank and sparse decomposition **2012**,		4
62	Keyframe selection for motion capture using motion activity analysis **2012**,		5
61	Joint rate allocation for statistical multiplexing of SVC **2012**,		2
60	A New Rate-Quantization Model for H.264/AVC Low-Delay Rate Control. *Lecture Notes in Computer Science*, **2012**, 492-500	0.9	2
59	. *IEEE Transactions on Multimedia*, **2011**, 13, 40-49	6.6	11
58	From universal bag-of-words to adaptive bag-of-phrases for mobile scene recognition **2011**,		9
57	Spectral Geometry Image: Image Based 3D Models for Digital Broadcasting Applications. *IEEE Transactions on Broadcasting*, **2011**, 57, 636-645	4.7	7
56	Integrated Content and Context Analysis for Mobile Landmark Recognition. *IEEE Transactions on Circuits and Systems for Video Technology*, **2011**, 21, 1476-1486	6.4	19

55	Low Power Motion Estimation with Probabilistic Computing **2011**,		2
54	Image based approach with k-mean clustering for the compression of human motion sequences **2011**,		1
53	Synchronized partial-body motion graphs **2010**,		2
52	Joint Rate Allocation for Multiprogram Video Coding Using FGS. *IEEE Transactions on Circuits and Systems for Video Technology*, **2010**, 20, 829-837	6.4	11
51	Bit-Rate Allocation for Broadcasting of Scalable Video Over Wireless Networks. *IEEE Transactions on Broadcasting*, **2010**, 56, 288-295	4.7	12
50	Adaptive resynchronization approach for scalable video over wireless channel. *Journal of Visual Communication and Image Representation*, **2010**, 21, 210-218	2.7	
49	Efficient inter mode decision for H.263 to H.264 video transcoding using support vector machines **2009**,		1
48	A multi-scale learning approach for landmark recognition using mobile devices **2009**,		6
47	Streaming 3D meshes using spectral geometry images **2009**,		4
46	A soft MAP framework for blind super-resolution image reconstruction. *Image and Vision Computing*, **2009**, 27, 364-373	3.7	53
45	A Nonlinear $L _{1}$-Norm Approach for Joint Image Registration and Super-Resolution. *IEEE Signal Processing Letters*, **2009**, 16, 981-984	3.2	12
44	A Novel Hybrid Model Framework to Blind Color Image Deconvolution. *IEEE Transactions on Systems, Man and Cybernetics, Part A: Systems and Humans*, **2008**, 38, 867-880		8
43	A new color image regularization scheme for blind image deconvolution. *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, **2008**,	1.6	1
42	Frame Complexity-Based Rate-Quantization Model for H.264/AVC Intraframe Rate Control. *IEEE Signal Processing Letters*, **2008**, 15, 373-376	3.2	47
41	. *IEEE Transactions on Multimedia*, **2008**, 10, 97-104	6.6	7
40	Fast intra mode decision algorithm for H.263 to H.264/AVC transcoding **2008**,		1
39	A nonlinear least square technique for simultaneous image registration and super-resolution. *IEEE Transactions on Image Processing*, **2007**, 16, 2830-41	8.7	62
38	Improved Frame Level MAD Prediction and Bit Allocation Scheme for H.264/AVC Rate Control **2007** ,		2

37	Partial Distortion Search Algorithm Using Predictive Search Area for Fast Full-Search Motion Estimation. *IEEE Signal Processing Letters*, **2007**, 14, 840-843	3.2	8
36	Joint Image Registration and Super-Resolution using Nonlinear Least Squares Method **2007**,		4
35	. *IEEE Transactions on Multimedia*, **2007**, 9, 37-45	6.6	19
34	A Resizing Algorithm With Two-Stage Realization for DCT-Based Transcoding. *IEEE Transactions on Circuits and Systems for Video Technology*, **2007**, 17, 248-253	6.4	7
33	Error-resilient coding of H.264 based on periodic macroblock. *IEEE Transactions on Broadcasting*, **2006**, 52, 223-229	4.7	13
32	The realization of arbitrary downsizing video transcoding. *IEEE Transactions on Circuits and Systems for Video Technology*, **2006**, 16, 540-546	6.4	10
31	GOP-based channel rate allocation using genetic algorithm for scalable video streaming over error-prone networks. *IEEE Transactions on Image Processing*, **2006**, 15, 1323-30	8.7	52
30	Region-Based Image Retrieval using Radial Basis Function Network **2006**,		5
29	Blind Super-Resolution Image Reconstruction using a Maximum a Posteriori Estimation **2006**,		9
28	. *IEEE Transactions on Multimedia*, **2005**, 7, 507-513	6.6	29
27	. *IEEE Transactions on Multimedia*, **2005**, 7, 1131-1138	6.6	8
26	Efficient fine granularity scalability using adaptive leaky factor. *IEEE Transactions on Broadcasting*, **2005**, 51, 512-519	4.7	1
25	. *IEEE Transactions on Multimedia*, **2005**, 7, 1021-1027	6.6	2
24	Content-based resynchronization for robust video transmission. *IEEE Transactions on Broadcasting*, **2004**, 50, 390-395	4.7	0
23	Efficient inner search for faster diamond search. *Signal Processing*, **2004**, 84, 527-533	4.4	0
22	An efficient arbitrary downsizing algorithm for video transcoding. *IEEE Transactions on Circuits and Systems for Video Technology*, **2004**, 14, 887-891	6.4	22
21	A motion vector recovery algorithm for digital video using Lagrange interpolation. *IEEE Transactions on Broadcasting*, **2003**, 49, 383-389	4.7	42
20	A fast octagon-based search algorithm for motion estimation. *Signal Processing*, **2003**, 83, 671-675	4.4	16

19	Smooth constrained motion estimation for video coding. *Signal Processing*, **2003**, 83, 677-680	4.4	14
18	Efficient multiplier structure for realization of the discrete cosine transform. *Signal Processing: Image Communication*, **2003**, 18, 527-536	2.8	3
17	Hexagon-based search pattern for fast block motion estimation. *IEEE Transactions on Circuits and Systems for Video Technology*, **2002**, 12, 349-355	6.4	450
16	Arbitrary downsizing video transcoding using fast motion vector reestimation. *IEEE Signal Processing Letters*, **2002**, 9, 352-355	3.2	18
15	Efficient prime factor algorithm and address generation techniques for the discrete cosine transform. *IEEE Transactions on Circuits and Systems Part 2: Express Briefs*, **2001**, 48, 985-988		1
14	Efficient recursive algorithm for the inverse discrete cosine transform. *IEEE Signal Processing Letters*, **2000**, 7, 276-277	3.2	8
13	Transform domain recursive algorithm to compute discrete cosine and sine transforms. *International Journal of Electronics*, **1996**, 80, 433-439	1.2	1
12	Concurrent computation of two-dimensional discrete cosine transform. *Circuits, Systems, and Signal Processing*, **1996**, 15, 597-607	2.2	0
11	. *IEEE Transactions on Circuits and Systems Part 2: Express Briefs*, **1995**, 42, 50-52		12
10	. *IEEE Transactions on Circuits and Systems for Video Technology*, **1994**, 4, 550-552	6.4	20
9	Two-dimensional channel rate allocation for SVC over error-prone channel		1
8	A novel intra-rate estimation method for H.264 rate control		5
7	Efficient three-step search algorithm for block motion estimation in video coding		4
6	An efficient inter mode decision approach for H.264 video coding		3
5	A novel unequal error protection approach for error resilient video transmission		13
4	Multiple description coding using multiple reference frame for robust video transmission		2
3	A novel hexagon-based search algorithm for fast block motion estimation		9
2			4

List of Publications

1 Recursive algorithm for the realization of the discrete cosine transform 1