Anton van den Hengel

List of Publications by Year
in descending order

185 papers	**12,100** citations	109264 **35** h-index	85498 **71** g-index
185 all docs	**185** docs citations	**185** times ranked	**8415** citing authors

#	Article	IF	Citations
1	Image-Based Recommendations on Styles and Substitutes. , 2015, , .		1,144
2	Wider or Deeper: Revisiting the ResNet Model for Visual Recognition. Pattern Recognition, 2019, 90, 119-133.	5.1	835
3	Memorizing Normality to Detect Anomaly: Memory-Augmented Deep Autoencoder for Unsupervised Anomaly Detection. , 2019, , .		736
4	A survey of appearance models in visual object tracking. ACM Transactions on Intelligent Systems and Technology, 2013, 4, 1-48.	2.9	505
5	Vision-and-Language Navigation: Interpreting Visually-Grounded Navigation Instructions in Real Environments. , 2018, , .		416
6	REFUGEÂChallenge: A unified framework for evaluating automatedÂmethods for glaucomaÂassessment from fundus photographs. Medical Image Analysis, 2020, 59, 101570.	7.0	354
7	Learning to rank in person re-identification with metric ensembles. , 2015, , .		305
8	Fast Supervised Hashing with Decision Trees for High-Dimensional Data. , 2014, , .		292
9	What Value Do Explicit High Level Concepts Have in Vision to Language Problems?. , 2016, , .		286
10	Image Captioning and Visual Question Answering Based on Attributes and External Knowledge. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1367-1381.	9.7	256
11	From Motion Blur to Motion Flow: A Deep Learning Solution for Removing Heterogeneous Motion Blur. , 2017, , .		246
12	Graph-Structured Representations for Visual Question Answering. , 2017, , .		237
13	FVQA: Fact-Based Visual Question Answering. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2413-2427.	9.7	227
14	Is face recognition really a Compressive Sensing problem?. , 2011, , .		213
15	Tips and Tricks for Visual Question Answering: Learnings from the 2017 Challenge. , 2018, , .		201
16	Visual question answering: A survey of methods and datasets. Computer Vision and Image Understanding, 2017, 163, 21-40.	3.0	199
17	Ask Me Anything: Free-Form Visual Question Answering Based on Knowledge from External Sources. , 2016, , .		190
18	Inductive Hashing on Manifolds. , 2013, , .		183

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19	Deep Anomaly Detection with Deviation Networks. , 2019, , .		172
20	Part-Based Visual Tracking with Online Latent Structural Learning. , 2013, , .		169
21	Deep linear discriminant analysis on fisher networks: A hybrid architecture for person re-identification. Pattern Recognition, 2017, 65, 238-250.	5.1	159
22	Attention-Guided Network for Ghost-Free High Dynamic Range Imaging. , 2019, , .		143
23	A General Two-Step Approach to Learning-Based Hashing. , 2013, , .		136
24	Hashing on Nonlinear Manifolds. IEEE Transactions on Image Processing, 2015, 24, 1839-1851.	6.0	120
25	Self-Trained Deep Ordinal Regression for End-to-End Video Anomaly Detection. , 2020, , .		117
26	The treasure beneath convolutional layers: Cross-convolutional-layer pooling for image classification. , 2015, , .		109
27	Strengthening the Effectiveness of Pedestrian Detection with Spatially Pooled Features. Lecture Notes in Computer Science, 2014, , 546-561.	1.0	108
28	Less is More: Zero-Shot Learning from Online Textual Documents with Noise Suppression. , 2016, , .		106
29	Semantic Labeling of Aerial and Satellite Imagery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 2868-2881.	2.3	104
30	REVERIE: Remote Embodied Visual Referring Expression in Real Indoor Environments. , 2020, , .		100
31	Fast Detection of Multiple Objects in Traffic Scenes With a Common Detection Framework. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 1002-1014.	4.7	98
32	Efficient Computation of Robust Weighted Low-Rank Matrix Approximations Using the L_1 Norm. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2012, 34, 1681-1690.	9.7	95
33	Pedestrian Detection with Spatially Pooled Features and Structured Ensemble Learning. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2016, 38, 1243-1257.	9.7	94
34	VideoTrace. ACM Transactions on Graphics, 2007, 26, 86.	4.9	89
35	Depth and surface normal estimation from monocular images using regression on deep features and hierarchical CRFs. , 2015, , .		83
36	Thrift: Local 3D Structure Recognition. , 2007, , .		82

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37	Incremental Learning of 3D-DCT Compact Representations for Robust Visual Tracking. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 863-881.	9.7	82
38	Explicit Knowledge-based Reasoning for Visual Question Answering. , 2017, , .		80
39	Visual Tracking With Spatio-Temporal Dempster–Shafer Information Fusion. IEEE Transactions on Image Processing, 2013, 22, 3028-3040.	6.0	78
40	Supervised Hashing Using Graph Cuts and Boosted Decision Trees. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 2317-2331.	9.7	78
41	An Embarrassingly Simple Approach to Visual Domain Adaptation. IEEE Transactions on Image Processing, 2018, 27, 3403-3417.	6.0	78
42	Efficient computation of robust low-rank matrix approximations in the presence of missing data using the L<inf>1</inf> norm. , 2010, , .		74
43	Characterness: An Indicator of Text in the Wild. IEEE Transactions on Image Processing, 2014, 23, 1666-1677.	6.0	73
44	Learning Compact Binary Codes for Visual Tracking. , 2013, , .		64
45	Exploring Context with Deep Structured Models for Semantic Segmentation. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1352-1366.	9.7	64
46	Cross-Convolutional-Layer Pooling for Image Recognition. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 2305-2313.	9.7	63
47	Cluster Sparsity Field: An Internal Hyperspectral Imagery Prior for Reconstruction. International Journal of Computer Vision, 2018, 126, 797-821.	10.9	63
48	Fast Global Kernel Density Mode Seeking: Applications to Localization and Tracking. IEEE Transactions on Image Processing, 2007, 16, 1457-1469.	6.0	62
49	Counterfactual Vision and Language Learning. , 2020, , .		62
50	VideoTrace. , 2007, , .		58
51	Pushing the Limits of Deep CNNs for Pedestrian Detection. IEEE Transactions on Circuits and Systems for Video Technology, 2018, 28, 1358-1368.	5.6	58
52	Learning Deep Gradient Descent Optimization for Image Deconvolution. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 5468-5482.	7.2	57
53	Multi-attention Network for One Shot Learning. , 2017, , .		56
54	Mid-level deep pattern mining. , 2015, , .		53

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55	The VQA-Machine: Learning How to Use Existing Vision Algorithms to Answer New Questions. , 2017, , .		50
56	When Unsupervised Domain Adaptation Meets Tensor Representations. , 2017, , .		50
57	Compositional Model Based Fisher Vector Coding for Image Classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 2335-2348.	9.7	48
58	Dictionary Learning for Promoting Structured Sparsity in Hyperspectral Compressive Sensing. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 7223-7235.	2.7	47
59	Unsupervised Domain Adaptation Using Robust Class-Wise Matching. IEEE Transactions on Circuits and Systems for Video Technology, 2019, 29, 1339-1349.	5.6	46
60	Learning discriminative trajectorylet detector sets for accurate skeleton-based action recognition. Pattern Recognition, 2017, 66, 202-212.	5.1	45
61	Rationalising the Renormalisation Method of Kanatani. Journal of Mathematical Imaging and Vision, 2001, 14, 21-38.	0.8	44
62	On the General Value of Evidence, and Bilingual Scene-Text Visual Question Answering. , 2020, , .		42
63	Towards Effective Deep Embedding for Zero-Shot Learning. IEEE Transactions on Circuits and Systems for Video Technology, 2020, 30, 2843-2852.	5.6	42
64	Guaranteed Ellipse Fitting with a Confidence Region and an Uncertainty Measure for Centre, Axes, and Orientation. Journal of Mathematical Imaging and Vision, 2015, 52, 173-199.	0.8	40
65	Learning What Makes a Difference from Counterfactual Examples and Gradient Supervision. Lecture Notes in Computer Science, 2020, , 580-599.	1.0	37
66	Large-Scale Binary Quadratic Optimization Using Semidefinite Relaxation and Applications. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 470-485.	9.7	36
67	Mining Mid-level Visual Patterns with Deep CNN Activations. International Journal of Computer Vision, 2017, 121, 344-364.	10.9	36
68	From fns to heiv: a link between two vision parameter estimation methods. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2004, 26, 264-268.	9.7	32
69	Efficient Dual Approach to Distance Metric Learning. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 394-406.	7.2	32
70	Guaranteed Ellipse Fitting with the Sampson Distance. Lecture Notes in Computer Science, 2012, , 87-100.	1.0	32
71	A new constrained parameter estimator for computer vision applications. Image and Vision Computing, 2004, 22, 85-91.	2.7	31
72	Graph mode-based contextual kernels for robust SVM tracking. , 2011, , .		31

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73	Bilinear Programming for Human Activity Recognition with Unknown MRF Graphs. , 2013, , .		30
74	Pairwise Matching through Max-Weight Bipartite Belief Propagation. , 2016, , .		30
75	The Road to Know-Where: An Object-and-Room Informed Sequential BERT for Indoor Vision-Language Navigation. , 2021, , .		30
76	Infinite Variational Autoencoder for Semi-Supervised Learning. , 2017, , .		29
77	Object-and-Action Aware Model for Visual Language Navigation. Lecture Notes in Computer Science, 2020, , 303-317.	1.0	29
78	Middleware for Distributed Video Surveillance. IEEE Distributed Systems Online, 2008, 9, 1-1.	0.5	28
79	Learning graph structure for multi-label image classification via clique generation. , 2015, , .		28
80	Visual Question Answering: A Tutorial. IEEE Signal Processing Magazine, 2017, 34, 63-75.	4.6	28
81	Robust Tracking with Weighted Online Structured Learning. Lecture Notes in Computer Science, 2012, , 158-172.	1.0	28
82	FNS, CFNS and HEIV: A Unifying Approach. Journal of Mathematical Imaging and Vision, 2005, 23, 175-183.	0.8	27
83	In situ image-based modeling. , 2009, , .		27
84	Training Effective Node Classifiers for Cascade Classification. International Journal of Computer Vision, 2013, 103, 326-347.	10.9	27
85	Measuring Latency for Video Surveillance Systems. , 2009, , .		26
86	Scaling CNNs for High Resolution Volumetric Reconstruction from a Single Image. , 2017, , .		26
87	Topology Estimation for Thousand-Camera Surveillance Networks. , 2007, , .		25
88	Reinforcement Learning with Attention that Works: A Self-Supervised Approach. Communications in Computer and Information Science, 2019, , 223-230.	0.4	25
89	Approximate Least Trimmed Sum of Squares Fitting and Applications in Image Analysis. IEEE Transactions on Image Processing, 2013, 22, 1836-1847.	6.0	24
90	Effectiveness of a Batteryless and Wireless Wearable Sensor System for Identifying Bed and Chair Exits in Healthy Older People. Sensors, 2016, 16, 546.	2.1	24

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91	Activity Topology Estimation for Large Networks of Cameras. , 2006, , .		22
92	Adaptive Importance Learning for Improving Lightweight Image Super-Resolution Network. International Journal of Computer Vision, 2020, 128, 479-499.	10.9	22
93	Interactive modelling for AR applications. , 2010, , .		21
94	A Fast Semidefinite Approach to Solving Binary Quadratic Problems. , 2013, , .		21
95	Multi-way backpropagation for training compact deep neural networks. Neural Networks, 2020, 126, 250-261.	3.3	21
96	Shape Similarity Analysis by Self-Tuning Locally Constrained Mixed-Diffusion. IEEE Transactions on Multimedia, 2013, 15, 1174-1183.	5.2	20
97	How Might Autonomous Vehicles Impact the City? The Case of Commuting to Central Adelaide. Urban Policy and Research, 2019, 37, 442-457.	0.8	20
98	High‐throughput 3D modelling to dissect the genetic control of leaf elongation in barley (<i>Hordeum vulgare</i>). Plant Journal, 2019, 98, 555-570.	2.8	20
99	Image Co-localization by Mimicking a Good Detector's Confidence Score Distribution. Lecture Notes in Computer Science, 2016, , 19-34.	1.0	20
100	Non-sparse linear representations for visual tracking with online reservoir metric learning. , 2012, , .		19
101	Learning to Zoom-In via Learning to Zoom-Out: Real-World Super-Resolution by Generating and Adapting Degradation. IEEE Transactions on Image Processing, 2021, 30, 2947-2962.	6.0	19
102	Sampson distance based joint estimation of multiple homographies with uncalibrated cameras. Computer Vision and Image Understanding, 2014, 125, 200-213.	3.0	18
103	Self-Paced Kernel Estimation for Robust Blind Image Deblurring. , 2017, , .		17
104	MPTV: Matching Pursuit-Based Total Variation Minimization for Image Deconvolution. IEEE Transactions on Image Processing, 2019, 28, 1851-1865.	6.0	17
105	Goal-Oriented Visual Question Generation via Intermediate Rewards. Lecture Notes in Computer Science, 2018, , 189-204.	1.0	17
106	Visual Question Answering as a Meta Learning Task. Lecture Notes in Computer Science, 2018, , 229-245.	1.0	17
107	Dual-Attention-Guided Network for Ghost-Free High Dynamic Range Imaging. International Journal of Computer Vision, 2022, 130, 76-94.	10.9	17
108	Leveraging surrounding context for scene text detection. , 2013, , .		16

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109	Part-Based Robust Tracking Using Online Latent Structured Learning. IEEE Transactions on Circuits and Systems for Video Technology, 2017, 27, 1235-1248.	5.6	16
110	Scripted Video Generation With a Bottom-Up Generative Adversarial Network. IEEE Transactions on Image Processing, 2020, 29, 7454-7467.	6.0	16
111	Middleware for video surveillance networks. , 2006, , .		15
112	Automatic camera placement for large scale surveillance networks. , 2009, , .		15
113	Sequential Person Recognition in Photo Albums with a Recurrent Network. , 2017, , .		14
114	Accurate Tensor Completion via Adaptive Low-Rank Representation. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 4170-4184.	7.2	14
115	Fast approximate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si19.gif display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>L</mml:mi></mml:mrow><mml:mrow><mml:mi>â^ž</mml:mrow></mml:mrow> minimization: Speeding up robust regression. Computational Statistics and Data Analysis, 2014, 77, 25-37.	0.7	13
116	Finding Camera Overlap in Large Surveillance Networks. Lecture Notes in Computer Science, 2007, , 375-384.	1.0	13
117	A Scalable Stagewise Approach to Large-Margin Multiclass Loss-Based Boosting. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 1002-1013.	7.2	12
118	Deep Single Image Deraining via Modeling Haze-Like Effect. IEEE Transactions on Multimedia, 2021, 23, 2481-2492.	5.2	12
119	Scalable Surveillance Software Architecture. , 2006, , .		11
120	Online unsupervised feature learning for visual tracking. Image and Vision Computing, 2016, 51, 84-94.	2.7	11
121	Tracking hand-off in large surveillance networks. , 2009, , .		10
122	StructBoost: Boosting Methods for Predicting Structured Output Variables. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2014, 36, 2089-2103.	9.7	10
123	Part-based modelling of compound scenes from images. , 2015, , .		10
124	Robust multiple homography estimation: An ill-solved problem. , 2015, , .		10
125	A hierarchical model for recognizing alarming states in a batteryless sensor alarm intervention for preventing falls in older people. Pervasive and Mobile Computing, 2017, 40, 1-16.	2.1	10
126	Cluster Sparsity Field for Hyperspectral Imagery Denoising. Lecture Notes in Computer Science, 2016, , 631-647.	1.0	10

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127	Estimating camera overlap in large and growing networks. , 2008, , .		9
128	Empirical evaluation of the exclusion approach to estimating camera overlap. , 2008, , .		8
129	Multiple Homography Estimation with Full Consistency Constraints. , 2010, , .		8
130	Extended depth-of-field via focus stacking and graph cuts. , 2013, , .		8
131	Structured learning of metric ensembles with application to person re-identification. Computer Vision and Image Understanding, 2017, 156, 51-65.	3.0	8
132	Actively Seeking and Learning From Live Data. , 2019, , .		8
133	Video super-resolution via mixed spatial-temporal convolution and selective fusion. Pattern Recognition, 2022, 126, 108577.	5.1	8
134	RandomBoost: Simplified Multiclass Boosting Through Randomization. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 764-779.	7.2	7
135	Worst Case Linear Discriminant Analysis as Scalable Semidefinite Feasibility Problems. IEEE Transactions on Image Processing, 2015, 24, 2382-2392.	6.0	7
136	A Model-Based Approach to Recovering the Structure of a Plant from Images. Lecture Notes in Computer Science, 2015, , 215-230.	1.0	7
137	Sharing features in multi-class boosting via group sparsity. , 2012, , .		6
138	A Comparison of Ellipse Fitting Methods and Implications for Multiple-View Geometry Estimation. , 2012, , .		6
139	Fully corrective boosting with arbitrary loss and regularization. Neural Networks, 2013, 48, 44-58.	3.3	6
140	Efficient SDP inference for fully-connected CRFs based on low-rank decomposition. , 2015, , .		6
141	Enforcing consistency constraints in uncalibrated multiple homography estimation using latent variables. Machine Vision and Applications, 2015, 26, 401-422.	1.7	6
142	What's to Know? Uncertainty as a Guide to Asking Goal-Oriented Questions. , 2019, , .		6
143	A Generative Adversarial Density Estimator. , 2019, , .		6
144	Human-AI Interactive and Continuous Sensemaking: A Case Study of Image Classification using Scribble Attention Maps. , 2021, , .		6

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145	Optimization on the manifold of multiple homographies. , 2009, , .		5
146	A dimensionality result for multiple homography matrices. , 2011, , .		5
147	On the Dimension of the Set of Two-View Multi-Homography Matrices. Complex Analysis and Operator Theory, 2013, 7, 465-484.	0.3	5
148	Asymmetric Pruning for Learning Cascade Detectors. IEEE Transactions on Multimedia, 2014, 16, 1254-1267.	5.2	5
149	A Study of the Region Covariance Descriptor: Impact of Feature Selection and Image Transformations. , 2015, , .		5
150	Medical Data Inquiry Using a Question Answering Model. , 2020, , .		5
151	Spatially aware feature selection and weighting for object retrieval. Image and Vision Computing, 2013, 31, 935-948.	2.7	4
152	Determining the Translational Speed of a Camera from Time-Varying Optical Flow. Lecture Notes in Computer Science, 2007, , 190-197.	1.0	4
153	CNN Attention Guidance for Improved Orthopedics Radiographic Fracture Classification. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 3139-3150.	3.9	4
154	<i>JFR</i> Special Issue on Agricultural Robotics. Journal of Field Robotics, 2017, 34, 1037-1038.	3.2	3
155	Gold Seeker: Information Gain From Policy Distributions for Goal-Oriented Vision-and-Langauge Reasoning. , 2020, , .		3
156	An Adaptive Bayesian Technique for Tracking Multiple Objects. Lecture Notes in Computer Science, 2007, , 657-665.	1.0	3
157	ForeSI: Success-Aware Visual Navigation Agent. , 2022, , .		3
158	<title>Is covariance information useful in estimating vision parameters?</title>. , 2000, 4309, 195.		2
159	A framework for determining overlap in large scale networks. , 2009, , .		2
160	Multi-projective Parameter Estimation for Sets of Homogeneous Matrices. , 2009, , .		2
161	Surprisal-aware scheduling of PTZ cameras. , 2009, , .		2
162	Image Retrieval with a Visual Thesaurus. , 2010, , .		2

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163	Image-Based Modelling for Augmenting Reality. , 2010, , .		2
164	A Hybrid Loss for Multiclass and Structured Prediction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2015, 37, 2-12.	9.7	2
165	Efficient Semidefinite Branch-and-Cut for MAP-MRF Inference. International Journal of Computer Vision, 2016, 117, 269-289.	10.9	2
166	Generalised Principal Component Analysis: Exploiting Inherent Parameter Constraints. Communications in Computer and Information Science, 2007, , 217-228.	0.4	2
167	Large-Scale Camera Topology Mapping: Application to Re-identification. , 2014, , 391-411.		2
168	Using Digital Visualization of Archival Sources to Enhance Archaeological Interpretation of the â€˜Life Historyâ€™ of Ships: The Case Study of HMCS/HMAS Protector. Coastal Research Library, 2019, , 89-101.	0.2	2
169	RATSAC: An Adaptive Method for Accelerated Robust Estimation and its Application to Video Synchronisation. , 2007, , .		1
170	Contradiction and Correlation for Camera Overlap Estimation. , 2009, , .		1
171	Toward a Digital Ecosystem: International Symposium on Ubiquitous Virtual Reality 2010. IEEE Pervasive Computing, 2011, 10, 90-93.	1.1	1
172	Camera Network Topology Estimation by Lighting Variation. , 2015, , .		1
173	Watch, Reason and Code. , 2019, , .		1
174	GADE: A Generative Adversarial Approach to Density Estimation and its Applications. International Journal of Computer Vision, 2020, 128, 2731-2743.	10.9	1
175	Show, Price and Negotiate: A Negotiator With Online Value Look-Ahead. IEEE Transactions on Multimedia, 2022, 24, 1426-1434.	5.2	1
176	Searching in space and time: a system for forensic analysis of large video repositories. , 2008, , .		1
177	Approximate constraint generation for efficient structured boosting. , 2013, , .		0
178	A relaxation method to articulated trajectory reconstruction from monocular image sequence. , 2014, , .		0
179	Proximal Riemannian Pursuit for Large-Scale Trace-Norm Minimization. , 2016, , .		0
180	Discriminative Clustering of High-Dimensional Data Using Generative Modeling. , 2018, , .		0

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181	Accurate imagery recovery using a multi-observation patch model. Information Sciences, 2019, 501, 724-741.	4.0	0
182	Image based modelling with VideoTrace. Computer Graphics, 2008, 42, 1-8.	0.1	0
183	Distributed Camera Overlap Estimation â€" Enabling Large Scale Surveillance. Studies in Computational Intelligence, 2011, , 147-182.	0.7	0
184	Fast Training of Effective Multi-class Boosting Using Coordinate Descent Optimization. Lecture Notes in Computer Science, 2013, , 782-795.	1.0	0
185	Large-Scale Camera Network Topology Estimation by Lighting Variation. Lecture Notes in Computer Science, 2017, , 455-467.	1.0	0