

Alfred O Hero

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/3608054/alfred-o-hero-publications-by-year.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

140
papers

3,080
citations

26
h-index

51
g-index

163
ext. papers

4,011
ext. citations

4.6
avg, IF

5.62
L-index

#	Paper	IF	Citations
140	Fundamental Limits of Deep Graph Convolutional Networks for Graph Classification. <i>IEEE Transactions on Information Theory</i> , 2022 , 1-1	2.8	0
139	Resolution Limits of Non-Adaptive 20 Questions Search for Multiple Targets. <i>IEEE Transactions on Information Theory</i> , 2022 , 1-1	2.8	
138	Second-Order Asymptotically Optimal Outlier Hypothesis Testing. <i>IEEE Transactions on Information Theory</i> , 2022 , 1-1	2.8	0
137	RAILS: A Robust Adversarial Immune-Inspired Learning System. <i>IEEE Access</i> , 2022 , 10, 22061-22078	3.5	1
136	Resolution Limits for the Noisy Non-Adaptive 20 Questions Problem. <i>IEEE Transactions on Information Theory</i> , 2021 , 67, 2055-2073	2.8	4
135	A data value metric for quantifying information content and utility. <i>Journal of Big Data</i> , 2021 , 8, 82	11.7	0
134	Achievable Resolution Limits for the Noisy Adaptive 20 Questions Problem 2021 ,		1
133	Robust Distributed Fixed-Time Economic Dispatch Under Time-Varying Topology 2021 , 5, 1183-1188		3
132	. <i>IEEE Transactions on Signal Processing</i> , 2021 , 69, 2939-2954	4.8	2
131	Beyond optimization: Supervised learning applications in relativistic laser-plasma experiments. <i>Physics of Plasmas</i> , 2021 , 28, 083102	2.1	0
130	Adaptive Multi-Channel Event Segmentation and Feature Extraction for Monitoring Health Outcomes. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , 68, 2377-2388	5	1
129	. <i>IEEE Transactions on Information Theory</i> , 2021 , 67, 5963-5996	2.8	1
128	Assessment of the Feasibility of Using Noninvasive Wearable Biometric Monitoring Sensors to Detect Influenza and the Common Cold Before Symptom Onset. <i>JAMA Network Open</i> , 2021 , 4, e2128534	10.4	4
127	Multimodal Data Fusion in High-Dimensional Heterogeneous Datasets Via Generative Models. <i>IEEE Transactions on Signal Processing</i> , 2021 , 69, 5175-5188	4.8	1
126	Expectation-propagation for weak radionuclide identification at radiation portal monitors. <i>Scientific Reports</i> , 2020 , 10, 6811	4.9	1
125	Learning to Bound the Multi-Class Bayes Error. <i>IEEE Transactions on Signal Processing</i> , 2020 , 68, 3793-3807	4.78	0
124	Solar Flare Intensity Prediction With Machine Learning Models. <i>Space Weather</i> , 2020 , 18, e2020SW002440	4.7	11

123	A deep learning architecture for metabolic pathway prediction. <i>Bioinformatics</i> , 2020 , 36, 2547-2553	7.2	25
122	Resolution Limits of Non-Adaptive Querying for Noisy 20 Questions Estimation 2020 ,		2
121	The Power of Graph Convolutional Networks to Distinguish Random Graph Models 2020 ,		1
120	A Primer on Zeroth-Order Optimization in Signal Processing and Machine Learning: Principals, Recent Advances, and Applications. <i>IEEE Signal Processing Magazine</i> , 2020 , 37, 43-54	9.4	10
119	Numerically Stable Binary Gradient Coding 2020 ,		5
118	Scalable Mutual Information Estimation Using Dependence Graphs 2019 ,		8
117	A Hierarchical Bayesian Approach to Neutron Spectrum Unfolding With Organic Scintillators. <i>IEEE Transactions on Nuclear Science</i> , 2019 , 66, 2265-2274	1.7	7
116	Identifying Influential Links for Event Propagation on Twitter: A Network of Networks Approach. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2019 , 5, 139-151	2.8	3
115	Part-Level Convolutional Neural Networks for Pedestrian Detection Using Saliency and Boundary Box Alignment. <i>IEEE Access</i> , 2019 , 7, 23027-23037	3.5	5
114	Identifying Solar Flare Precursors Using Time Series of SDO/HMI Images and SHARP Parameters. <i>Space Weather</i> , 2019 , 17, 1404-1426	3.7	26
113	Geometric Estimation of Multivariate Dependency. <i>Entropy</i> , 2019 , 21,	2.8	1
112	Convergence Rates for Empirical Estimation of Binary Classification Bounds. <i>Entropy</i> , 2019 , 21, 1144	2.8	0
111	Direct Estimation of Density Functionals Using a Polynomial Basis. <i>IEEE Transactions on Signal Processing</i> , 2018 , 66, 558-572	4.8	8
110	Unequal Error Protection Querying Policies for the Noisy 20 Questions Problem. <i>IEEE Transactions on Information Theory</i> , 2018 , 64, 1105-1131	2.8	6
109	Multimodal Event Detection in Twitter Hashtag Networks. <i>Journal of Signal Processing Systems</i> , 2018 , 90, 185-200	1.4	12
108	Multi-Functional Sensing for Swarm Robots Using Time Sequence Classification: HoverBot, an Example. <i>Frontiers in Robotics and AI</i> , 2018 , 5, 55	2.8	4
107	Quickest Detection for Changes in Maximal kNN Coherence of Random Matrices. <i>IEEE Transactions on Signal Processing</i> , 2018 , 66, 4490-4503	4.8	6
106	Phase Transitions and a Model Order Selection Criterion for Spectral Graph Clustering. <i>IEEE Transactions on Signal Processing</i> , 2018 , 66, 3407-3420	4.8	5

105	Quantum-inspired computational imaging. <i>Science</i> , 2018 , 361,	33.3	71
104	Fundamental Limits on Data Acquisition: Trade-offs Between Sample Complexity and Query Difficulty 2018 ,		2
103	Ensemble Estimation of Information Divergence. <i>Entropy</i> , 2018 , 20,	2.8	9
102	Genome Architecture Mediates Transcriptional Control of Human Myogenic Reprogramming. <i>IScience</i> , 2018 , 6, 232-246	6.1	12
101	The Three-Terminal Interactive Lossy Source Coding Problem. <i>IEEE Transactions on Information Theory</i> , 2017 , 63, 532-562	2.8	4
100	Nasopharyngeal Protein Biomarkers of Acute Respiratory Virus Infection. <i>EBioMedicine</i> , 2017 , 17, 172-181	18	10
99	Measure-Transformed Quasi-Maximum Likelihood Estimation. <i>IEEE Transactions on Signal Processing</i> , 2017 , 65, 748-763	4.8	8
98	Learning to Classify With Possible Sensor Failures. <i>IEEE Transactions on Signal Processing</i> , 2017 , 65, 836-849	4	3
97	Direct estimation of information divergence using nearest neighbor ratios 2017 ,		7
96	2017 ,		9
95	Multilayer Spectral Graph Clustering via Convex Layer Aggregation: Theory and Algorithms. <i>IEEE Transactions on Signal and Information Processing Over Networks</i> , 2017 , 3, 553-567	2.8	20
94	Similarity Function Tracking Using Pairwise Comparisons. <i>IEEE Transactions on Signal Processing</i> , 2017 , 65, 5635-5648	4.8	1
93	Part-level fully convolutional networks for pedestrian detection 2017 ,		2
92	. <i>IEEE Transactions on Information Theory</i> , 2017 , 63, 698-714	2.8	5
91	Robust Spectral Unmixing of Sparse Multispectral Lidar Waveforms Using Gamma Markov Random Fields. <i>IEEE Transactions on Computational Imaging</i> , 2017 , 3, 658-670	4.5	21
90	Information theoretic structure learning with confidence 2017 ,		7
89	Bounds on Variance for Unimodal Distributions. <i>IEEE Transactions on Information Theory</i> , 2017 , 63, 6936-6949	9	9
88	Image patch analysis of sunspots and active regions. <i>Journal of Space Weather and Space Climate</i> , 2016 , 6, A2	2.5	5

87	Improving convergence of divergence functional ensemble estimators 2016 ,		11
86	Analysis of a privacy-preserving PCA algorithm using random matrix theory 2016 ,		5
85	The Ontology of Biological and Clinical Statistics (OBCS) for standardized and reproducible statistical analysis. <i>Journal of Biomedical Semantics</i> , 2016 , 7, 53	2.2	14
84	Multilayer spectral graph clustering via convex layer aggregation 2016 ,		1
83	An individualized predictor of health and disease using paired reference and target samples. <i>BMC Bioinformatics</i> , 2016 , 17, 47	3.6	29
82	Empirically Estimable Classification Bounds Based on a Nonparametric Divergence Measure. <i>IEEE Transactions on Signal Processing</i> , 2016 , 64, 580-591	4.8	39
81	A Genomic Signature of Influenza Infection Shows Potential for Presymptomatic Detection, Guiding Early Therapy, and Monitoring Clinical Responses. <i>Open Forum Infectious Diseases</i> , 2016 , 3, ofw007	1	24
80	A Survey of Stochastic Simulation and Optimization Methods in Signal Processing. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2016 , 10, 224-241	7.5	57
79	Multi-centrality graph spectral decompositions and their application to cyber intrusion detection 2016 ,		12
78	Image patch analysis of sunspots and active regions. <i>Journal of Space Weather and Space Climate</i> , 2016 , 6, A3	2.5	6
77	Shortest path through random points. <i>Annals of Applied Probability</i> , 2016 , 26,	2	4
76	THE INTRINSIC VALUE OF HFO FEATURES AS A BIOMARKER OF EPILEPTIC ACTIVITY. <i>Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing</i> , 2016 , 2016, 6290-6294	1.6	5
75	Universal phase transition in community detectability under a stochastic block model. <i>Physical Review E</i> , 2015 , 91, 032804	2.4	11
74	Performance Guarantees for Adaptive Estimation of Sparse Signals. <i>IEEE Transactions on Information Theory</i> , 2015 , 61, 2043-2059	2.8	3
73	On Decentralized Estimation With Active Queries. <i>IEEE Transactions on Signal Processing</i> , 2015 , 63, 2610-2622	4.8	15
72	Deep Community Detection. <i>IEEE Transactions on Signal Processing</i> , 2015 , 63, 5706-5719	4.8	32
71	Phase Transitions in Spectral Community Detection. <i>IEEE Transactions on Signal Processing</i> , 2015 , 63, 4339-4347	4.8	22
70	Information extraction from large multi-layer social networks 2015 ,		6

69	Robust Linear Spectral Unmixing Using Anomaly Detection. <i>IEEE Transactions on Computational Imaging</i> , 2015 , 1, 74-85	4.5	26
68	A Dictionary Approach to Electron Backscatter Diffraction Indexing. <i>Microscopy and Microanalysis</i> , 2015 , 21, 739-52	0.5	97
67	Robust linear spectral unmixing using outlier detection 2015 ,		2
66	Empirical Non-Parametric Estimation of the Fisher Information. <i>IEEE Signal Processing Letters</i> , 2015 , 22, 988-992	3.2	21
65	Multimodal factor analysis 2015 ,		2
64	Robust Kronecker Product PCA for Spatio-Temporal Covariance Estimation. <i>IEEE Transactions on Signal Processing</i> , 2015 , 63, 6368-6378	4.8	19
63	Meta learning of bounds on the Bayes classifier error 2015 ,		5
62	Collaborative 20 Questions for Target Localization. <i>IEEE Transactions on Information Theory</i> , 2014 , 60, 2233-2252	2.8	31
61	Ensemble estimation of multivariate f-divergence 2014 ,		19
60	Computerized analysis of the 12-lead electrocardiogram to identify epicardial ventricular tachycardia exit sites. <i>Heart Rhythm</i> , 2014 , 11, 1966-73	6.7	9
59	Social Collaborative Retrieval. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2014 , 8, 680-689	7.5	6
58	Marginal Likelihoods for Distributed Parameter Estimation of Gaussian Graphical Models. <i>IEEE Transactions on Signal Processing</i> , 2014 , 62, 5425-5438	4.8	11
57	Dynamic Stochastic Blockmodels for Time-Evolving Social Networks. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2014 , 8, 552-562	7.5	116
56	Assessing and safeguarding network resilience to nodal attacks. <i>IEEE Communications Magazine</i> , 2014 , 52, 138-143	9.1	41
55	Robust spectral unmixing for anomaly detection 2014 ,		6
54	Nonlinear Unmixing of Hyperspectral Images: Models and Algorithms. <i>IEEE Signal Processing Magazine</i> , 2014 , 31, 82-94	9.4	257
53	Local Fiedler vector centrality for detection of deep and overlapping communities in networks 2014 ,		21
52	Estimating epistemic and aleatory uncertainties during hydrologic modeling: An information theoretic approach. <i>Water Resources Research</i> , 2013 , 49, 2253-2273	5.4	61

51	A performance guarantee for adaptive estimation of sparse signals 2013 ,		2
50	On Convergence of Kronecker Graphical Lasso Algorithms. <i>IEEE Transactions on Signal Processing</i> , 2013 , 61, 1743-1755	4.8	29
49	Multistage Adaptive Estimation of Sparse Signals. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2013 , 7, 783-796	7.5	15
48	Ensemble estimators for multivariate entropy estimation. <i>IEEE Transactions on Information Theory</i> , 2013 , 59, 4374-4388	2.8	29
47	Covariance Estimation in High Dimensions Via Kronecker Product Expansions. <i>IEEE Transactions on Signal Processing</i> , 2013 , 61, 5347-5360	4.8	41
46	Node removal vulnerability of the largest component of a network 2013 ,		10
45	Adaptive search for sparse dynamic targets 2013 ,		1
44	Spatio-temporal analysis of Gaussian WSS processes via complex correlation and partial correlation screening 2013 ,		2
43	A collaborative 20 questions model for target search with human-machine interaction 2013 ,		1
42	Adaptive spectrum sensing and estimation 2013 ,		4
41	Low separation rank covariance estimation using Kronecker product expansions 2013 ,		4
40	A host transcriptional signature for presymptomatic detection of infection in humans exposed to influenza H1N1 or H3N2. <i>PLoS ONE</i> , 2013 , 8, e52198	3.7	121
39	Hub Discovery in Partial Correlation Graphs. <i>IEEE Transactions on Information Theory</i> , 2012 , 58, 6064-6078	8.8	46
38	Recursive $\ell_{1,\infty}$ Group Lasso. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60, 3978-3987	4.8	23
37	LOCALLY-ADAPTIVE SIMILARITY METRIC FOR DEFORMABLE MEDICAL IMAGE REGISTRATION 2012 , 2012, 728-731	1.5	9
36	Multistage adaptive estimation of sparse signals 2012 ,		9
35	Distributed Covariance Estimation in Gaussian Graphical Models. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60, 211-220	4.8	21
34	Kronecker graphical lasso 2012 ,		3

33	On Measure Transformed Canonical Correlation Analysis. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60, 4570-4585	4.8	21
32	Hyperspectral Image Unmixing Using a Multiresolution Sticky HDP. <i>IEEE Transactions on Signal Processing</i> , 2012 , 60, 1656-1671	4.8	16
31	Measure transformed canonical correlation analysis with application to financial data 2012 ,		7
30	Efficient learning of sparse, distributed, convolutional feature representations for object recognition 2011 ,		17
29	. <i>IEEE Sensors Journal</i> , 2011 , 11, 3064-3075	4	108
28	Immunophenotypic signatures of benign and dysplastic granulopoiesis by cytomic profiling. <i>Cytometry Part B - Clinical Cytometry</i> , 2011 , 80, 282-90	3.4	8
27	Large-Scale Correlation Screening. <i>Journal of the American Statistical Association</i> , 2011 , 106, 1540-1552	2.8	38
26	Two-Stage Multiscale Search for Sparse Targets. <i>IEEE Transactions on Signal Processing</i> , 2011 , 59, 2331-2341	4.8	13
25	Temporal dynamics of host molecular responses differentiate symptomatic and asymptomatic influenza a infection. <i>PLoS Genetics</i> , 2011 , 7, e1002234	6	141
24	Performance bounds for sparse parametric covariance estimation in Gaussian models 2011 ,		1
23	Covariance Estimation in Decomposable Gaussian Graphical Models. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 1482-1492	4.8	21
22	On Local Intrinsic Dimension Estimation and Its Applications. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 650-663	4.8	49
21	Shrinkage Algorithms for MMSE Covariance Estimation. <i>IEEE Transactions on Signal Processing</i> , 2010 , 58, 5016-5029	4.8	224
20	Construction of Abdominal Probabilistic Atlases and Their Value in Segmentation of Normal Organs in Abdominal CT Scans. <i>IEEE Transactions on Information and Systems</i> , 2010 , E93-D, 2291-2301	0.6	5
19	Principal component analysis in decomposable Gaussian graphical models 2009 ,		6
18	Practical recipes for the model order reduction, dynamical simulation and compressive sampling of large-scale open quantum systems. <i>New Journal of Physics</i> , 2009 , 11, 065002	2.9	2
17	Information Preserving Component Analysis: Data Projections for Flow Cytometry Analysis. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2009 , 3, 148-158	7.5	9
16	Gene expression signatures diagnose influenza and other symptomatic respiratory viral infections in humans. <i>Cell Host and Microbe</i> , 2009 , 6, 207-17	23.4	287

15	A multidimensional shrinkage-thresholding operator 2009 ,		14
14	Decomposable Principal Component Analysis. <i>IEEE Transactions on Signal Processing</i> , 2009 , 57, 4369-4377.	4.8	35
13	Hoxa9 and Meis1 Bind Highly Conserved Elements Near Targets Regulated in Leukemia Cells.. <i>Blood</i> , 2008 , 112, 3362-3362		2.2
12	Network sensor management for tracking and localization 2007 ,		7
11	Optimal Sequential Energy Allocation for Inverse Problems. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2007 , 1, 67-78	7.5	6
10	On Tests for Global Maximum of the Log-Likelihood Function. <i>IEEE Transactions on Information Theory</i> , 2007 , 53, 2510-2525	2.8	6
9	Fiber Tract Clustering on Manifolds With Dual Rooted-Graphs 2007 ,		24
8	Training in multiple-antenna Rician fading wireless channels with deterministic specular component. <i>IEEE Transactions on Wireless Communications</i> , 2007 , 6, 110-119	9.6	4
7	An Information-Based Approach to Sensor Management in Large Dynamic Networks. <i>Proceedings of the IEEE</i> , 2007 , 95, 978-999	14.3	77
6	Detection of the Number of Signals Using the Benjamini-Hochberg Procedure. <i>IEEE Transactions on Signal Processing</i> , 2007 , 55, 2497-2508	4.8	42
5	USING DIRECTED INFORMATION TO BUILD BIOLOGICALLY RELEVANT INFLUENCE NETWORKS 2007 ,		9
4	Image registration methods in high-dimensional space. <i>International Journal of Imaging Systems and Technology</i> , 2006 , 16, 130-145	2.5	23
3	Sparse Image Reconstruction using Sparse Priors 2006 ,		11
2	Image matching using alpha-entropy measures and entropic graphs. <i>Signal Processing</i> , 2005 , 85, 277-296.	4.4	47
1	Word Spotting in Bitmapped Fax Documents. <i>Information Retrieval</i> , 2000 , 2, 207-226	1.8	8