

# Yuval Shavitt

## List of Publications by Year in descending order

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114  
papers

3,681  
citations

279701

23  
h-index

155592

55  
g-index

116  
all docs

116  
docs citations

116  
times ranked

2210  
citing authors

#	ARTICLE	IF	CITATIONS
1	A model of Internet topology using k-shell decomposition. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 11150-11154.	3.3	612
2	IDMaps: a global Internet host distance estimation service. IEEE/ACM Transactions on Networking, 2001, 9, 525-540.	2.6	333
3	DIMES. Computer Communication Review, 2005, 35, 71-74.	1.5	320
4	The cache location problem. IEEE/ACM Transactions on Networking, 2000, 8, 568-582.	2.6	292
5	Analysis of multi-path routing. IEEE/ACM Transactions on Networking, 1999, 7, 885-896.	2.6	185
6	Constrained mirror placement on the Internet. IEEE Journal on Selected Areas in Communications, 2002, 20, 1369-1382.	9.7	114
7	A Geolocation Databases Study. IEEE Journal on Selected Areas in Communications, 2011, 29, 2044-2056.	9.7	112
8	A QoS-aware multicast routing protocol. IEEE Journal on Selected Areas in Communications, 2000, 18, 2580-2592.	9.7	91
9	Hyperbolic Embedding of Internet Graph for Distance Estimation and Overlay Construction. IEEE/ACM Transactions on Networking, 2008, 16, 25-36.	2.6	85
10	Big-Bang Simulation for Embedding Network Distances in Euclidean Space. IEEE/ACM Transactions on Networking, 2004, 12, 993-1006.	2.6	76
11	FlowPic: Encrypted Internet Traffic Classification is as Easy as Image Recognition. , 2019, , .		73
12	Distributive immunization of networks against viruses using the "honey-pot" architecture. Nature Physics, 2005, 1, 184-188.	6.5	71
13	Key management for restricted multicast using broadcast encryption. IEEE/ACM Transactions on Networking, 2000, 8, 443-454.	2.6	57
14	Topology aggregation for directed graphs. IEEE/ACM Transactions on Networking, 2001, 9, 82-90.	2.6	57
15	FlowPic: A Generic Representation for Encrypted Traffic Classification and Applications Identification. IEEE Transactions on Network and Service Management, 2021, 18, 1218-1232.	3.2	57
16	RAGE " A rapid graphlet enumerator for large networks. Computer Networks, 2012, 56, 810-819.	3.2	55
17	Internet resiliency to attacks and failures under BGP policy routing. Computer Networks, 2006, 50, 3183-3196.	3.2	50
18	Centralized and Distributed Algorithms for Routing and Weighted Max-Min Fair Bandwidth Allocation. IEEE/ACM Transactions on Networking, 2008, 16, 1015-1024.	2.6	50

#	ARTICLE	IF	CITATIONS
19	Efficient retrieval of recommendations in a matrix factorization framework. , 2012, , .		45
20	Approximation and Heuristic Algorithms for Minimum-Delay Application-Layer Multicast Trees. IEEE/ACM Transactions on Networking, 2007, 15, 473-484.	2.6	40
21	Counting Stars and Other Small Subgraphs in Sublinear-Time. SIAM Journal on Discrete Mathematics, 2011, 25, 1365-1411.	0.4	40
22	An Active Network Approach to Efficient Network Management. Lecture Notes in Computer Science, 1999, , 220-231.	1.0	37
23	Prediction of wastewater treatment quality using LSTM neural network. Environmental Technology and Innovation, 2021, 23, 101632.	3.0	34
24	Minimizing Recovery State in Geographic Ad Hoc Routing. IEEE Transactions on Mobile Computing, 2009, 8, 203-217.	3.9	33
25	Improved fairness algorithms for rings with spatial reuse. IEEE/ACM Transactions on Networking, 1997, 5, 190-204.	2.6	28
26	A structural approach for PoP geo-location. Computer Networks, 2012, 56, 1029-1040.	3.2	25
27	On the Diversity, Stability and Symmetry of End-to-End Internet Routes. , 2010, , .		24
28	Computing the Unmeasured: An Algebraic Approach to Internet Mapping. IEEE Journal on Selected Areas in Communications, 2004, 22, 67-78.	9.7	23
29	Efficient QoS Partition and Routing of Unicast and Multicast. IEEE/ACM Transactions on Networking, 2006, 14, 1336-1347.	2.6	21
30	Automatic Large Scale Generation of Internet PoP Level Maps. , 2008, , .		21
31	A Structural Approach for PoP Geo-Location. , 2010, , .		21
32	An analysis of the Steam community network evolution. , 2012, , .		21
33	Efficient Counting of Network Motifs. , 2010, , .		20
34	SNMP GetPrev: an efficient way to browse large MIB tables. IEEE Journal on Selected Areas in Communications, 2002, 20, 656-667.	9.7	18
35	Approximating the Number of Network Motifs. Internet Mathematics, 2009, 6, 349-372.	0.7	18
36	Minimizing recovery state In geographic ad-hoc routing. , 2006, , .		17

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37	The effect of network hierarchy structure on performance of ATM PNNI hierarchical routing. Computer Communications, 2000, 23, 980-986.	3.1	16
38	On multicast trees: structure and size estimation. IEEE/ACM Transactions on Networking, 2006, 14, 557-567.	2.6	16
39	Tomography of scale-free networks and shortest path trees. Physical Review E, 2006, 74, 066108.	0.8	16
40	A Measurement Study of the Origins of End-to-End Delay Variations. Lecture Notes in Computer Science, 2010, , 21-30.	1.0	15
41	The Role of Temporal Trends in Growing Networks. PLoS ONE, 2016, 11, e0156505.	1.1	15
42	China's Maxim "Leave No Access Point Unexploited: The Hidden Story of China Telecom's BGP Hijacking. Military Cyber Affairs, 2018, 3, .	0.1	15
43	Fast and lean encrypted Internet traffic classification. Computer Communications, 2022, 186, 166-173.	3.1	15
44	A practical revocation scheme for broadcast encryption using smartcards. ACM Transactions on Information and System Security, 2006, 9, 325-351.	4.5	14
45	Beyond centrality" classifying topological significance using backup efficiency and alternative paths. New Journal of Physics, 2007, 9, 266-266.	1.2	14
46	Towards Making Broadcast Encryption Practical. Lecture Notes in Computer Science, 1999, , 140-157.	1.0	14
47	Optimal Routing in Gossip Networks. IEEE Transactions on Vehicular Technology, 2005, 54, 1473-1487.	3.9	13
48	SoMR: A scalable distributed QoS multicast routing protocol. Journal of Parallel and Distributed Computing, 2008, 68, 137-149.	2.7	13
49	Predicting Billboard Success Using Data-Mining in P2P Networks. , 2009, , .		13
50	The active process interaction with its environment. Computer Networks, 2001, 36, 21-34.	3.2	12
51	Song Clustering Using Peer-to-Peer Co-occurrences. , 2009, , .		12
52	Diffusion Centrality in Social Networks. , 2012, , .		12
53	Maximum Flow Routing with Weighted Max-Min Fairness. Lecture Notes in Computer Science, 2004, , 278-287.	1.0	12
54	Message terminating algorithms for anonymous rings of unknown size. Information Processing Letters, 1995, 54, 111-119.	0.4	11

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55	Near-Deterministic Inference of AS Relationships. , 2009, , .		11
56	Topological trends of internet content providers. , 2012, , .		11
57	Detecting Pedophile Activity in BitTorrent Networks. Lecture Notes in Computer Science, 2012, , 106-115.	1.0	11
58	Spotting out emerging artists using geo-aware analysis of P2P query strings. , 2008, , .		9
59	An Optimal Median Calculation Algorithm for Estimating Internet Link Delays from Active Measurements. , 2007, , .		8
60	On Network Neutrality Measurements. ACM Transactions on Intelligent Systems and Technology, 2017, 8, 1-22.	2.9	8
61	Approximating the Number of Network Motifs. Lecture Notes in Computer Science, 2009, , 13-24.	1.0	8
62	Geographical Internet PoP Level Maps. Lecture Notes in Computer Science, 2012, , 121-124.	1.0	8
63	New models and algorithms for programmable networks. Computer Networks, 2002, 38, 311-326.	3.2	7
64	A -approximation for the set cover problem with set ownership. Information Processing Letters, 2009, 109, 183-186.	0.4	7
65	Mining Music from Large-Scale, Peer-to-Peer Networks. IEEE MultiMedia, 2011, 18, 14-23.	1.5	7
66	Arabian nights: measuring the arab internet during the 2011 events. IEEE Network, 2012, 26, 75-80.	4.9	7
67	Inferring the periodicity in large-scale Internet measurements. , 2013, , .		7
68	A Deep Learning Approach for IP Hijack Detection Based on ASN Embedding. , 2020, , .		7
69	Distributed Council Election. IEEE/ACM Transactions on Networking, 2004, 12, 483-492.	2.6	6
70	On the benefits of cheating by self-interested agents in vehicular networks. , 2007, , .		6
71	Analysis of Shared Memory Priority Queues with Two Discard Levels. IEEE Network, 2007, 21, 46-50.	4.9	6
72	Quantifying the Importance of Vantage Point Distribution in Internet Topology Mapping (Extended) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	9.7	6

#	ARTICLE	IF	CITATIONS
73	Counting Stars and Other Small Subgraphs in Sublinear Time. , 2010, , .		6
74	Bringing order to BGP. , 2007, , .		5
75	A Study on Gossiping in Transportation Networks. IEEE Transactions on Vehicular Technology, 2008, 57, 2602-2607.	3.9	5
76	Sensing clouds: A distributed cooperative target tracking with tiny binary noisy sensors. Ad Hoc Networks, 2013, 11, 2356-2366.	3.4	5
77	On the Presence of Child Sex Abuse in BitTorrent Networks. IEEE Internet Computing, 2013, 17, 60-66.	3.2	5
78	Beyond Centrality - Classifying Topological Significance Using Backup Efficiency and Alternative Paths. Lecture Notes in Computer Science, 2007, , 774-785.	1.0	5
79	Analysis of one-way reservation algorithms. Journal of High Speed Networks, 1996, 5, 347-363.	0.6	4
80	Trading potatoes in distributed multi-tier routing systems. , 2008, , .		4
81	Stability and Symmetry of Internet Routing. , 2009, , .		4
82	Limitations and Possibilities of Path Trading between Autonomous Systems. , 2010, , .		4
83	Peer-to-peer information retrieval using shared-content clustering. Knowledge and Information Systems, 2014, 39, 383-408.	2.1	4
84	Unveiling the Type of Relationship Between Autonomous Systems Using Deep Learning. , 2020, , .		4
85	On the Economics of Multicasting. NETNOMICS: Economic Research and Electronic Networking, 2004, 6, 1-20.	0.9	3
86	Unifying Unknown Nodes in the Internet Graph Using Semisupervised Spectral Clustering. , 2008, , .		3
87	Bringing order to BGP: Decreasing time and message complexity. Computer Networks, 2009, 53, 2241-2256.	3.2	3
88	On the feasibility of a large scale distributed testbed for measuring quality of path characteristics in the Internet. , 2009, , .		3
89	Building recommendation systems using peer-to-peer shared content. , 2010, , .		3
90	Applying clustering algorithms on Peer-to-Peer networks for content searching and recommendation. , 2010, , .		3

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91	Performance of concurrent multipath transmissions – Measurements and model validation. , 2011, , .		3
92	Measuring the validity of peer-to-peer data for information retrieval applications. Computer Networks, 2012, 56, 1092-1102.	3.2	3
93	Message terminate algorithms for anonymous rings of unknown size. Lecture Notes in Computer Science, 1992, , 264-276.	1.0	3
94	Risk Aware Stochastic Placement of Cloud Services: The Case of Two Data Centers. Lecture Notes in Computer Science, 2018, , 59-88.	1.0	3
95	Multipath Routing Slice Experiments in Federated Testbeds. Lecture Notes in Computer Science, 2011, , 247-258.	1.0	3
96	Internet PoP Level Maps. Lecture Notes in Computer Science, 2013, , 82-103.	1.0	3
97	Analysis of Shared Memory Priority Queues with Two Discard Levels. , 2006, , .		2
98	A Simulation Study of Multi-Color Marking of TCP Aggregates. , 2007, , .		2
99	A framework for extracting musical similarities from peer-to-peer networks. , 2010, , .		2
100	Approximating the Statistics of various Properties in Randomly Weighted Graphs. , 2011, , .		2
101	Risk Aware Stochastic Placement of Cloud Services: The Multiple Data Center Case. Lecture Notes in Computer Science, 2018, , 138-156.	1.0	2
102	Cellular Networks With Vehicular Relay Nodes: Capacity, Coverage, and Scalability. IEEE Transactions on Vehicular Technology, 2019, 68, 9074-9087.	3.9	2
103	SASA: Source-Aware Self-Attention for IP Hijack Detection. IEEE/ACM Transactions on Networking, 2022, 30, 437-449.	2.6	2
104	AP2Vec: An Unsupervised Approach for BGP Hijacking Detection. IEEE Transactions on Network and Service Management, 2022, 19, 2255-2268.	3.2	2
105	A comparison of token-bucket based multi-color marking techniques. , 2006, , .		1
106	Competitive analysis of buffer policies with SLA commitments. Network Protocols (ICNP), Proceedings of the IEEE International Conference on, 2008, , .	0.0	1
107	The 2nd workshop on active internet measurements (AIMS-2) report. Computer Communication Review, 2010, 40, 53-58.	1.5	1
108	A distributed cooperative target tracking. , 2010, , .		1

#	ARTICLE	IF	CITATIONS
109	Improving AS relationship inference using PoPs. , 2013, , .		1
110	BGP2Vec: Unveiling the Latent Characteristics of Autonomous Systems. IEEE Transactions on Network and Service Management, 2022, 19, 4516-4530.	3.2	1
111	Guest Editorial Measurement of Internet Topologies. IEEE Journal on Selected Areas in Communications, 2011, 29, 1761-1764.	9.7	0
112	Improving AS relationship inference using PoPs. , 2013, , .		0
113	Risk Aware Stochastic Placement of Cloud Services. IEEE/ACM Transactions on Networking, 2021, 29, 805-820.	2.6	0
114	Achieving Bursty Traffic Guarantees by Integrating Traffic Engineering and Buffer Management Tools. Lecture Notes in Computer Science, 2006, , 63-74.	1.0	0