Steve Hranilovic

List of Publications by Year
in descending order

125 papers	4,602 citations	186209 28 h-index	110317 64 g-index
125 all docs	125 docs citations	125 times ranked	2393 citing authors

#	Article	IF	Citations
1	Outage Capacity Optimization for Free-Space Optical Links With Pointing Errors. Journal of Lightwave Technology, 2007, 25, 1702-1710.	2.7	1,126
2	A review of communication-oriented optical wireless systems. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	1.5	163
3	Capacity Bounds for Wireless Optical Intensity Channels With Gaussian Noise. IEEE Transactions on Information Theory, 2010, 56, 6066-6077.	1.5	162
4	Design and Implementation of Color-Shift Keying for Visible Light Communications. Journal of Lightwave Technology, 2014, 32, 2053-2060.	2.7	158
5	Capacity-Achieving Probability Measure for Conditionally Gaussian Channels With Bounded Inputs. IEEE Transactions on Information Theory, 2005, 51, 2073-2088.	1.5	152
6	Performance of PPM on terrestrial FSO links with turbulence and pointing errors. IEEE Communications Letters, 2010, 14, 468-470.	2.5	143
7	Coordinated Broadcasting for Multiuser Indoor Visible Light Communication Systems. IEEE Transactions on Communications, 2015, 63, 3313-3324.	4.9	134
8	Soft-Switching Hybrid FSO/RF Links Using Short-Length Raptor Codes: Design and Implementation. IEEE Journal on Selected Areas in Communications, 2009, 27, 1698-1708.	9.7	132
9	A pixelated MIMO wireless optical communication system. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 859-874.	1.9	127
10	All-Optical Multihop Free-Space Optical Communication Systems. Journal of Lightwave Technology, 2011, 29, 2663-2669.	2.7	113
11	Visible Light Communications Using OFDM and Multiple LEDs. IEEE Transactions on Communications, 2015, 63, 4304-4313.	4.9	112
12	Capacity Bounds for Power- and Band-Limited Optical Intensity Channels Corrupted by Gaussian Noise. IEEE Transactions on Information Theory, 2004, 50, 784-795.	1.5	111
13	Diversity Gain and Outage Probability for MIMO Free-Space Optical Links with Misalignment. IEEE Transactions on Communications, 2012, 60, 479-487.	4.9	95
14	Optical intensity-modulated direct detection channels: signal space and lattice codes. IEEE Transactions on Information Theory, 2003, 49, 1385-1399.	1.5	94
15	OOK Performance for Terrestrial FSO Links in Turbulent Atmosphere with Pointing Errors Modeled by Hoyt Distributions. IEEE Communications Letters, 2011, 15, 875-877.	2.5	83
16	Constellation design for color-shift keying using interior point methods. , 2012, , .		80
17	Channel capacity and non-uniform signalling for free-space optical intensity channels. IEEE Journal on Selected Areas in Communications, 2009, 27, 1553-1563.	9.7	75
18	IDyLL. , 2015, , .		70

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19	A Study of Ultrawideband Antennas for Near-Field Imaging. IEEE Transactions on Antennas and Propagation, 2007, 55, 1184-1188.	3.1	68
20	Non-line-of-sight single-scatter propagation model for noncoplanar geometries. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 420.	0.8	63
21	Receiver design for asymmetrically clipped optical OFDM. , 2011, , .		53
22	Capacity-Achieving Distributions for the Discrete-Time Poisson Channelâ€"Part I: General Properties and Numerical Techniques. IEEE Transactions on Communications, 2014, 62, 194-202.	4.9	48
23	On the design of bandwidth efficient signalling for indoor wireless optical channels. International Journal of Communication Systems, 2005, 18, 205-228.	1.6	47
24	Hybrid Visible Light and Power Line Communication for Indoor Multiuser Downlink. Journal of Optical Communications and Networking, 2017, 9, 635.	3.3	45
25	Binary-Input Non-Line-of-Sight Solar-Blind UV Channels: Modeling, Capacity and Coding. Journal of Optical Communications and Networking, 2012, 4, 1008.	3.3	39
26	Outage Performance of Exponentiated Weibull FSO Links Under Generalized Pointing Errors. Journal of Lightwave Technology, 2017, 35, 1605-1613.	2.7	39
27	Coordinated Beamforming for Downlink Visible Light Communication Networks. IEEE Transactions on Communications, 2018, 66, 3571-3582.	4.9	37
28	Outage Capacity for MISO Intensity-Modulated Free-Space Optical Links With Misalignment. Journal of Optical Communications and Networking, 2011, 3, 780.	3.3	35
29	Channel Measurement and Markov Modeling of an Urban Free-Space Optical Link. Journal of Optical Communications and Networking, 2012, 4, 836.	3.3	34
30	In-Field Demonstration of OFDM-Over-FSO. IEEE Photonics Technology Letters, 2012, 24, 709-711.	1.3	34
31	Minimum-Bandwidth Optical Intensity Nyquist Pulses. IEEE Transactions on Communications, 2007, 55, 574-583.	4.9	32
32	Integration of indoor visible light and power line communication systems. , 2013, , .		32
33	Power reduction techniques for multiple-subcarrier modulated diffuse wireless optical channels. IEEE Transactions on Communications, 2008, 56, 279-288.	4.9	27
34	Interference Management in WLAN Mesh Networks Using Free-Space Optical Links. Journal of Lightwave Technology, 2008, 26, 1735-1743.	2.7	27
35	Spatial-Diversity Imaging Receivers for Non-Line-of-Sight Solar-Blind UV Communications. Journal of Lightwave Technology, 2015, 33, 2246-2255.	2.7	26
36	Capacity-Achieving Distributions for the Discrete-Time Poisson Channel—Part II: Binary Inputs. IEEE Transactions on Communications, 2014, 62, 203-213.	4.9	25

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37	Silicon-Photomultiplier-Based Underwater Wireless Optical Communication Using Pulse-Amplitude Modulation. IEEE Journal of Oceanic Engineering, 2020, 45, 1611-1621.	2.1	25
38	Impact of angular pointing error on BER performance of underwater optical wireless links. Optics Express, 2020, 28, 34606.	1.7	25
39	Outage probability analysis of a vertical underwater wireless optical link subject to oceanic turbulence and pointing errors. Journal of Optical Communications and Networking, 2022, 14, 439.	3.3	25
40	Angular diversity approach to indoor positioning using visible light. , 2013, , .		23
41	Robust MMSE linear precoding for visible light communication broadcasting systems. , 2013, , .		23
42	C-RAN Uplink Optimization Using Mixed Radio and FSO Fronthaul. Journal of Optical Communications and Networking, 2018, 10, 603.	3.3	23
43	Upper and Lower Bounds on the Capacity of Wireless Optical Intensity Channels. , 2007, , .		21
44	Free-Space Optical Gateway Placement in Hybrid Wireless Mesh Networks. Journal of Lightwave Technology, 2009, 27, 2688-2697.	2.7	20
45	Impact of Fiber Nonlinearity on 5G Backhauling via Mixed FSO/Fiber Network. IEEE Access, 2017, 5, 19942-19950.	2.6	20
46	Absolute Value Layered ACO-OFDM for Intensity-Modulated Optical Wireless Channels. IEEE Transactions on Communications, 2020, 68, 7098-7110.	4.9	20
47	Visible light communications: the road to standardization and commercialization (Part 1) [Guest Editorial]. , 2013, 51, 24-25.		19
48	Amplify-and-Forward Strategy Using MRC Reception Over FSO Channels with Pointing Errors. Journal of Optical Communications and Networking, 2018, 10, 545.	3.3	19
49	Angular MIMO for Underwater Wireless Optical Communications: Link Modeling and Tracking. IEEE Journal of Oceanic Engineering, 2021, 46, 1391-1407.	2.1	19
50	Parameter Optimization for an Underwater Optical Wireless Vertical Link Subject to Link Misalignments. IEEE Journal of Oceanic Engineering, 2021, 46, 1424-1437.	2.1	19
51	Performance analysis of noise cancellation in a diversity combined ACO-OFDM system. , 2012, , .		18
52	Diversity and Multiplexing for Near-Field Atmospheric Optical Communication. IEEE Transactions on Communications, 2013, 61, 1988-1997.	4.9	18
53	Capacity of optical wireless communication channels. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190184.	1.6	18
54	Hybrid NOMA and ZF Pre-Coding Transmission for Multi-Cell VLC Networks. IEEE Open Journal of the Communications Society, 2020, 1, 513-526.	4.4	18

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55	Optical OFDM for SiPM-Based Underwater Optical Wireless Communication Links. Sensors, 2020, 20, 6057.	2.1	16
56	Bandlimited Optical Intensity Modulation Under Average and Peak Power Constraints. IEEE Transactions on Communications, 2016, 64, 3820-3830.	4.9	15
57	Performance Bounds on Passive Indoor Positioning Using Visible Light. Journal of Lightwave Technology, 2020, 38, 2190-2200.	2.7	15
58	Short-Length Raptor Codes for Mobile Free-Space Optical Channels. , 2009, , .		14
59	Practical OFDM signalling for visible light communications using spatial summation. , 2014, , .		14
60	Passive Indoor Visible Light Positioning System Using Deep Learning. IEEE Internet of Things Journal, 2021, 8, 14810-14821.	5.5	14
61	Impact of finite receiver-aperture size in a non-line-of-sight single-scatter propagation model. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 2568.	0.8	12
62	Passive Indoor Localization for Visible Light Communication Systems. , 2018, , .		12
63	Two-dimensional binary halftoned optical intensity channels. IET Communications, 2008, 2, 11.	1.5	11
64	Capacity of Optical Intensity Channels with Peak and Average Power Constraints. , 2009, , .		11
65	Spectrally factorized optical OFDM. , 2011, , .		11
66	A Fixed-Scale Pixelated MIMO Visible Light Communication System. IEEE Journal on Selected Areas in Communications, 2018, 36, 203-211.	9.7	11
67	Capacity and Nonuniform Signaling for Discrete-Time Poisson Channels. Journal of Optical Communications and Networking, 2013, 5, 329.	3.3	10
68	Amplify-and-forward integration of power line and visible light communications. , 2015, , .		10
69	Mixed mmWave and Radio-Over-Fiber Systems With Fiber Nonlinearity. IEEE Photonics Technology Letters, 2019, 31, 23-26.	1.3	10
70	Kramers-Kronig Optical OFDM for Bandlimited Intensity Modulated Visible Light Communications. Journal of Lightwave Technology, 2021, 39, 7135-7145.	2.7	9
71	Optical impulse modulation for indoor diffuse wireless communications. IEEE Transactions on Communications, 2009, 57, 499-508.	4.9	8
72	Raptor-Coded Free-Space Optical Communications Experiment. Journal of Optical Communications and Networking, 2016, 8, 398.	3.3	8

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73	MIMO Optical Wireless Channels Using Halftoning. , 2008, , .		7
74	Dynamic spot diffusing configuration for indoor optical wireless access. IEEE Transactions on Communications, 2009, 57, 1765-1775.	4.9	7
75	Diversity gains for MIMO wireless optical intensity channels with atmospheric fading and misalignment. , 2010, , .		7
76	Absolute Value Layered ACO-OFDM for Intensity-Modulated Optical Wireless Channels. , 2019, , .		7
77	Angular MIMO for Underwater Wireless Optical Communications: Channel Modelling and Capacity. , 2019, , .		7
78	Rate-Power Trade-Off in Simultaneous Lightwave Information and Power Transfer Systems. IEEE Communications Letters, 2021, 25, 1249-1253.	2.5	7
79	Low-Complexity Layered ACO-OFDM for Power-Efficient Visible Light Communications. IEEE Transactions on Green Communications and Networking, 2022, 6, 1780-1792.	3.5	7
80	Diversity Reception for Deep-Space Optical Communication Using Linear Projections. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 1071-1083.	1.9	6
81	Two-Level MPPM-MDPSK Modulation for Free-Space Optical Channels. , 2018, , .		6
82	Light-Emitting Commutating Diodes for Optical Wireless Communications Within LED Drivers. IEEE Photonics Journal, 2020, 12, 1-11.	1.0	6
83	Discreteness of Sum-Capacity-Achieving Distributions for Discrete-Time Poisson Multiple Access Channels with Peak Constraints. IEEE Communications Letters, 2013, 17, 1644-1647.	2.5	5
84	Visible light communications: the road to standardization and commercialization (Part 2) [Guest Editorial]. , 2014, 52, 62-63.		5
85	On the Use of Photon Arrival-Times for Non-Line-of-Sight Solar-Blind UV Channels. IEEE Communications Letters, 2014, 18, 913-916.	2.5	5
86	Hybrid two-level MPPMâ€“MDPSK modulation for high-speed optical communication networks. Applied Optics, 2019, 58, 9757.	0.9	5
87	Experimental Setup for Single-Pixel Imaging of Turbulent Wavefronts and Speckle-Based Phase Retrieval. , 2022, , .		5
88	Information rates of optical impulse modulation over indoor diffuse wireless channels. , 2008, , .		4
89	Optimization of beam width, bit error rate and availability for free-space optical links. , 2008, , .		4
90	Lower bounds on the capacity of discrete-time Poisson channels with dark current. , 2010, , .		4

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91	Diversity gain for near-field MISO atmospheric optical communications. , 2012, , .		4
92	Free-space optical links for latency-tolerant traffic. IET Communications, 2012, 6, 507.	1.5	4
93	Rate-adaptive FSO communication via rate-compatible punctured LDPC codes. , 2013, , .		4
94	Layered Antisymmetry-Constructed Clipped Optical OFDM for IM/DD Systems. , 2019, , .		4
95	Layered antisymmetry-constructed clipped optical OFDM for low-complexity VLC systems. Optics Express, 2021, 29, 10613.	1.7	4
96	Power Allocation for Uplink Multi-User Optical Wireless Communication Systems. IEEE Transactions on Communications, 2022, 70, 1072-1084.	4.9	4
97	A Dynamic Spot Diffusing Architecture for Indoor Wireless Optical Communications. , 2006, , .		3
98	Optical Power Reduction for Multiple-Subcarrier Modulated Indoor Wireless Optical Channels. , 2006, , .		3
99	Outage Probability for Free-Space Optical Systems Over Slow Fading Channels With Pointing Errors. , 2006, , .		3
100	Design of non-uniform capacity-approaching signaling for optical wireless intensity channels. , 2008, , .		3
101	Multilevel error diffusion for wireless optical MIMO channels. , 2008, , .		3
102	Compressive Sensing Receiver for Free-Space Optical Communication Through the Atmosphere. , 2008, , .		3
103	Subcarrier allocation in hybrid visible light and power line communication system. , 2016, , .		3
104	A Novel Method of Integrating Visible Light Communications within LED Drivers. , 2017, , .		3
105	Network planning of uplink all-optical passive FSO/OF C-RAN fronthaul. Journal of Optical Communications and Networking, 2019, 11, 600.	3.3	3
106	Under-Sea Ice Diffusing Optical Communications. IEEE Access, 2021, 9, 159652-159671.	2.6	3
107	Gateway Placement in Wireless Mesh Networks Using Free Space Optical Links. , 2008, , .		2
108	Optical communication through time-varying turbulent atmosphere using compressive sensing. , 2009, , .		2

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109	Spatial multiplexing and diversity techniques for multiple-element optical wireless links. , 2009, , .		2
110	Simulation of atmospheric turbulence for optical systems with extended sources. Applied Optics, 2012, 51, 7509.	0.9	2
111	A two-dimensional signal space for bandlimited optical intensity channels. , 2015, , .		2
112	Trends and Progress in Optical Wireless Communications. , 2017, , .		2
113	WLAN Mesh Network Interference Management Using FSO Link Deployment. , 2007, , .		1
114	Information rates of solar blind non-line-of-sight ultra-violet channels with binary-input. , 2012, , .		1
115	Multiple-input multiple-output techniques for indoor optical wireless communications. , 0, , 116-145.		1
116	Systematic raptor codes for atmospheric optical channels. , 2013, , .		1
117	Turn on the lights: leveraging visible light for communications and positioning. , 2015, , .		1
118	Indoor localization using low-complexity luminaires and ambient light sensors. , 2016, , .		1
119	Passive indoor visible light-based fall detection using neural networks. Optics Express, 2021, 29, 43389.	1.7	1
120	Outage capacity with non-uniform signaling for free-space optical channels. , 2008, , .		0
121	On the use of free-space optical links for latency-tolerant traffic applications. , 2010, , .		0
122	Editorial: Guest Editorial: Special Section on Photonic and Free Space Optics Networks. IET Communications, 2012, 6, 471.	1.5	0
123	Iterative decoding and multiuser communication using sparse space codes for MIMO channels. , 2013, , .		0
124	Spectrally efficient visible light communications. , 2017, , .		0
125	Passive Positioning using Visible Light Systems. , 2021, , .		0