

Athanasios G Kanatas

List of Publications by Year in descending order

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Version: 2024-02-01

156
papers

2,266
citations

279798

23
h-index

289244

40
g-index

156
all docs

156
docs citations

156
times ranked

1630
citing authors

#	ARTICLE	IF	CITATIONS
1	A Survey on Machine-Learning Techniques for UAV-Based Communications. <i>Sensors</i> , 2019, 19, 5170.	3.8	193
2	A Novel Approach to MIMO Transmission Using a Single RF Front End. <i>IEEE Journal on Selected Areas in Communications</i> , 2008, 26, 972-980.	14.0	158
3	Performance Analysis of Overlay Spectrum Sharing in Hybrid Satellite-Terrestrial Systems With Secondary Network Selection. <i>IEEE Transactions on Wireless Communications</i> , 2017, 16, 6586-6601.	9.2	122
4	UAV-to-Ground Communications: Channel Modeling and UAV Selection. <i>IEEE Transactions on Communications</i> , 2020, 68, 5135-5144.	7.8	120
5	A UTD propagation model in urban microcellular environments. <i>IEEE Transactions on Vehicular Technology</i> , 1997, 46, 185-193.	6.3	107
6	Parasitic Antenna Arrays for Wireless MIMO Systems. , 2014, , .		85
7	Three-Dimensional HAP-MIMO Channels: Modeling and Analysis of Space-Time Correlation. <i>IEEE Transactions on Vehicular Technology</i> , 2010, 59, 2232-2242.	6.3	71
8	Performance Analysis of Multi-Antenna Multiuser Hybrid Satellite-Terrestrial Relay Systems for Mobile Services Delivery. <i>IEEE Access</i> , 2018, 6, 24729-24745.	4.2	60
9	On the Double-Generalized Gamma Statistics and Their Application to the Performance Analysis of V2V Communications. <i>IEEE Transactions on Communications</i> , 2018, 66, 448-460.	7.8	49
10	Three-Dimensional Modeling of mmWave Doubly Massive MIMO Aerial Fading Channels. <i>IEEE Transactions on Vehicular Technology</i> , 2020, 69, 1190-1202.	6.3	49
11	Beamspace-Domain Analysis of Single-RF Front-End MIMO Systems. <i>IEEE Transactions on Vehicular Technology</i> , 2011, 60, 1195-1199.	6.3	46
12	Adaptive Antenna Subarray Formation for MIMO Systems. <i>IEEE Transactions on Wireless Communications</i> , 2006, 5, 2977-2982.	9.2	44
13	V2V Cooperative Relaying Communications Under Interference and Outdated CSI. <i>IEEE Transactions on Vehicular Technology</i> , 2018, 67, 3466-3480.	6.3	40
14	Selecting Array Configurations for MIMO Systems: An Evolutionary Computation Approach. <i>IEEE Transactions on Wireless Communications</i> , 2004, 3, 1994-1998.	9.2	36
15	A Stochastic Beamforming Algorithm for ESPAR Antennas. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2008, 7, 745-748.	4.0	36
16	The Land Mobile Earth-Space Channel. <i>IEEE Vehicular Technology Magazine</i> , 2011, 6, 44-53.	3.4	36
17	An ESPAR Antenna for Beamspace-MIMO Systems Using PSK Modulation Schemes. , 2007, , .		35
18	Joint Impact of RF Hardware Impairments and Channel Estimation Errors in Spectrum Sharing Multiple-Relay Networks. <i>IEEE Transactions on Communications</i> , 2018, 66, 3809-3824.	7.8	29

#	ARTICLE	IF	CITATIONS
19	Three-Dimensional Modeling and Simulation of MIMO Mobile-to-Mobile via Stratospheric Relay Fading Channels. IEEE Transactions on Vehicular Technology, 2013, 62, 2014-2030.	6.3	27
20	Spatial multiplexing by decomposing the far-field of a compact ESPAR antenna. , 2008, , .		26
21	Dual-Polarized Narrowband MIMO LMS Channel Measurements in Urban Environments. IEEE Transactions on Antennas and Propagation, 2017, 65, 763-774.	5.1	26
22	Radio Propagation Channel Measurements for Multi-Antenna Satellite Communication Systems: A Survey. IEEE Antennas and Propagation Magazine, 2014, 56, 102-122.	1.4	25
23	Performance of generalized selection combining receivers in K fading channels. IEEE Communications Letters, 2008, 12, 816-818.	4.1	24
24	AERIAL DEGREES OF FREEDOM OF PARASITIC ARRAYS FOR SINGLE RF FRONT-END MIMO TRANSCEIVERS. Progress in Electromagnetics Research B, 2011, 35, 287-306.	1.0	24
25	Reconfigurable Orthonormal Basis Patterns Using ESPAR Antennas. IEEE Antennas and Wireless Propagation Letters, 2013, 12, 448-451.	4.0	24
26	Optimal 3-D Aerial Relay Placement for Multi-User MIMO Communications. IEEE Transactions on Aerospace and Electronic Systems, 2019, 55, 3218-3229.	4.7	24
27	AI-Inspired Non-Terrestrial Networks for IIoT: Review on Enabling Technologies and Applications. IoT, 2020, 1, 21-48.	3.8	23
28	Microcellular propagation measurements and simulation at 1.8 GHz in urban radio environment. IEEE Transactions on Vehicular Technology, 1998, 47, 1012-1026.	6.3	20
29	Pattern reconfigurable ESPAR antenna for vehicle-to-vehicle communications. IET Microwaves, Antennas and Propagation, 2018, 12, 280-286.	1.4	20
30	SIR Analysis in 3D UAV Networks: A Stochastic Geometry Approach. IEEE Access, 2020, 8, 204963-204973.	4.2	19
31	Performance Analysis of Cognitive Relay Networks With RF Hardware Impairments and CEEs in the Presence of Primary Users's™ Interference. IEEE Transactions on Cognitive Communications and Networking, 2018, 4, 406-421.	7.9	17
32	Exploiting Shadowing Stationarity for Antenna Selection in V2V Communications. IEEE Transactions on Vehicular Technology, 2019, 68, 1607-1615.	6.3	17
33	City center high-elevation angle propagation measurements at L band for land mobile satellite systems. IEEE Transactions on Vehicular Technology, 1998, 47, 1002-1011.	6.3	16
34	Applications of generalized RBF-NN for path loss prediction. , 0, , .		16
35	A co-operative beamforming solution for eliminating multi-hop communications in wireless sensor networks. IEEE Journal on Selected Areas in Communications, 2010, 28, 1055-1062.	14.0	16
36	A Single RF MIMO Loading Network for High-Order Modulation Schemes. International Journal of Antennas and Propagation, 2014, 2014, 1-10.	1.2	16

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37	Neural networks applications for the prediction of propagation path loss in urban environments. , 0, , .		15
38	Energy efficiency of MIMO-based Sensor Networks with a Cooperative Node Selection Algorithm. , 2007, , .		15
39	Capacity Performance of Adaptive Receive Antenna Subarray Formation for MIMO Systems. Eurasip Journal on Wireless Communications and Networking, 2007, 2007, .	2.4	15
40	Energy Efficiency Comparison of MIMO-Based and Multihop Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2007, 2008, 1.	2.4	14
41	A propagation prediction tool for urban mobile radio systems. IEEE Transactions on Vehicular Technology, 2000, 49, 1348-1355.	6.3	13
42	Delay spread measurements and characterization in a special propagation environment for PCS microcells. , 0, , .		13
43	A Receive Antenna Subarray Formation Algorithm for MIMO Systems. IEEE Communications Letters, 2007, 11, 396-398.	4.1	13
44	Path-Loss and Time-Dispersion Parameters of UWB Signals in a Military Airplane. IEEE Antennas and Wireless Propagation Letters, 2009, 8, 790-793.	4.0	13
45	A Genetic Algorithm Applied for Optimization of Antenna Arrays Used in Mobile Radio Channel Characterization Devices. IEEE Transactions on Instrumentation and Measurement, 2009, 58, 2475-2487.	4.7	13
46	Performance evaluation of OFDM transmission over a challenging urban propagation environment. IEEE Transactions on Broadcasting, 2003, 49, 87-96.	3.2	11
47	Statistical Simulation Modeling of 3-D HAP-MIMO Channels. Wireless Personal Communications, 2012, 65, 833-841.	2.7	11
48	SEP of rectangular QAM in composite fading channels. AEU - International Journal of Electronics and Communications, 2015, 69, 246-252.	2.9	11
49	Space Shift Keying Transmission for Intervehicular Communications. IEEE Transactions on Intelligent Transportation Systems, 2016, 17, 3635-3640.	8.0	11
50	Outage probability analysis in multi-user FSO/RF and UAV-enabled MIMO communication networks. Physical Communication, 2021, 49, 101475.	2.1	11
51	A limited feedback technique for beamspace MIMO systems with single RF front-end. , 2008, , .		10
52	Frobenius norm based receive Antenna Subarray Formation for MIMO systems. , 2006, , .		9
53	Elaborate analysis and design of filter-bank-based sensing for wideband cognitive radios. Eurasip Journal on Advances in Signal Processing, 2014, 2014, .	1.7	9
54	The Bivariate Double Rayleigh Distribution for Multichannel Time-Varying Systems. IEEE Wireless Communications Letters, 2016, 5, 524-527.	5.0	9

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55	Towards a Security Assurance Framework for Connected Vehicles. , 2018, , .		9
56	Spatially Correlated 3-D HAP-MIMO Fading Channels. , 2008, , .		8
57	Pattern diversity for single RF user terminals in multiuser environments. IEEE Communications Letters, 2010, 14, 151-153.	4.1	8
58	Reconfigurable parasitic antennas for compact mobile terminals in multiuser wireless systems. Eurasip Journal on Wireless Communications and Networking, 2012, 2012, .	2.4	8
59	Dual polarized MIMO LMS channel measurements and characterization in a pedestrian environment. , 2016, , .		8
60	A printed monopole ESPAR antenna for Truck-to-Truck communications. , 2017, , .		8
61	Hybrid satellite-terrestrial spectrum sharing system with opportunistic secondary network selection. , 2017, , .		8
62	A New Shadowed Double-Scattering Model with Application to UAV-to-Ground Communications. , 2019, , .		8
63	Radio Wave Propagation and Channel Modeling for Earth-Space Systems. , 0, , .		8
64	Narrowband characterisation of the land mobile satellite channel: A comparison of empirical models. European Transactions on Telecommunications, 1996, 7, 315-321.	1.2	7
65	A narrowband land mobile satellite channel software simulator for urban environments. International Journal of Satellite Communications and Networking, 2000, 18, 17-45.	0.6	7
66	Capacity optimized line-of-sight HAP-MIMO channels for Fixed Wireless Access. , 2009, , .		7
67	Wideband HAP-MIMO Channels: A 3-D Modeling and Simulation Approach. Wireless Personal Communications, 2014, 74, 639-664.	2.7	7
68	Joint effect of jamming and noise in wiretap channels with multiple antennas. , 2017, , .		7
69	A Low-Complexity Reconfigurable Multi-Antenna Technique for Non-Terrestrial Networks. Frontiers in Communications and Networks, 2021, 2, .	3.0	7
70	Indoor mobile radio channel measurements and characterization for DECT picocells. , 0, , .		6
71	Integrating power control with routing to satisfy energy and delay constraints in sensor networks. European Transactions on Telecommunications, 2009, 20, 233-245.	1.2	6
72	A single hop architecture exploiting cooperative beamforming for wireless sensor networks. Physical Communication, 2011, 4, 237-243.	2.1	6

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73	A cooperative relay selection scheme in V2V communications under interference and outdated CSI. , 2016, , .		6
74	Joint effect of jamming and noise on the secrecy outage performance of wiretap channels with feedback delay and multiple antennas. Transactions on Emerging Telecommunications Technologies, 2017, 28, e3191.	3.9	6
75	The pattern selection capability of a printed ESPAR antenna. , 2017, , .		6
76	Transmit antenna selection in vehicle-to-vehicle time-varying fading channels. , 2017, , .		6
77	Approximations to the Distribution of the Sum of Generalized Normal RVs Using the Moments Matching Method and its Applications in Performance Analysis of Equal Gain Diversity Receivers. IEEE Transactions on Vehicular Technology, 2018, 67, 7230-7241.	6.3	6
78	AN INTEGRATED SHARK-FIN RECONFIGURABLE ANTENNA FOR V2X COMMUNICATIONS. Progress in Electromagnetics Research C, 2020, 100, 1-16.	0.9	6
79	MIMO Channel Characterization for Short Range Fixed Wireless Propagation Environments. Wireless Personal Communications, 2006, 36, 339-361.	2.7	5
80	A three dimensional model for land mobile-HAP-MIMO fading channels. , 2008, , .		5
81	CHANNEL MEASUREMENTS AND MODELLING IN A MILITARY CARGO AIRPLANE. Progress in Electromagnetics Research B, 2010, 26, 69-100.	1.0	5
82	Cooperative Beam Forming in Smart Dust: Getting Rid of Multihop Communications. IEEE Pervasive Computing, 2010, 9, 47-53.	1.3	5
83	Single RF MIMO Systems: Exploiting the Capabilities of Parasitic Antennas. , 2011, , .		5
84	A 3-D model for MIMO mobile-to-mobile amplify-and-forward relay fading channels. , 2012, , .		5
85	Adaptive Basis Patterns Computation for Electronically Steerable Passive Array Radiator Antennas. , 2013, , .		5
86	Statistical characterization of an urban dual-polarized MIMO LMS channel. International Journal of Satellite Communications and Networking, 2018, 36, 474-488.	1.8	5
87	Hybrid Multi-Antenna Techniques for V2X Communications—Prototyping and Experimentation. Telecom, 2020, 1, 80-95.	2.6	5
88	Incorporating privacy by design in body sensor networks for medical applications: A privacy and data protection framework. Computer Science and Information Systems, 2021, 18, 323-347.	1.0	5
89	Analysis of Planar Random Arrays With Stochastic Geometry Tools. IEEE Transactions on Antennas and Propagation, 2022, 70, 1906-1918.	5.1	5
90	An empirical model for high elevation angle land-mobile satellite channels at urban environment. IEEE Communications Letters, 1998, 2, 92-93.	4.1	4

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91	SIR-based uplink terrestrial call admission control scheme with handoff for mixed traffic W-CDMA networks. , 0, , .		4
92	Measurements and channel characterization at 1.89 GHz in modern office buildings. European Transactions on Telecommunications, 2003, 14, 177-192.	1.2	4
93	Robustness of Receive Antenna Subarray Formation to Hardware and Signal Non-Idealities. IEEE Vehicular Technology Conference, 2007, , .	0.4	4
94	Closed-Loop Beamspace MIMO Systems with Low Hardware Complexity. , 2009, , .		4
95	Radio Planning of Single-Frequency Networks for Broadcasting Digital TV in Mixed-Terrain Regions. IEEE Antennas and Propagation Magazine, 2014, 56, 123-141.	1.4	4
96	ESPAR antenna positioning for Truck-to-Truck communication links. , 2016, , .		4
97	Cognitive Multi-Relay Networks with RF Hardware Impairments and Channel Estimation Errors. , 2017, , .		4
98	Measurements and channel characterization at 1.89 GHz in modern office buildings. European Transactions on Telecommunications, 2003, 14, 177-192.	1.2	4
99	Human fall detection using mmWave radars: a cluster-assisted experimental approach. Journal of Ambient Intelligence and Humanized Computing, 2023, 14, 11657-11669.	4.9	4
100	Finite Point Processes in a Truncated Octahedron-Based 3D UAV Network. IEEE Transactions on Vehicular Technology, 2022, 71, 7230-7243.	6.3	4
101	Performance Comparison of Wireless Aerial 3D Cellular Network Models. IEEE Communications Letters, 2022, 26, 1779-1783.	4.1	4
102	MIMO channel characterization results from short range rooftop to rooftop wideband measurements. , 0, , .		3
103	Reduced Hardware Complexity Receive Antenna Subarray Formation for MIMO Systems Based on Frobenius Norm Criterion. , 2006, , .		3
104	Experimental multipath component characteristics for short range urban propagation environments. European Transactions on Telecommunications, 2007, 18, 595-603.	1.2	3
105	Maximising capacity of MIMO systems with receive antenna subarray formation. Electronics Letters, 2008, 44, 1204.	1.0	3
106	On the Capacity of 3-D Space-Time Correlated HAP-MIMO Channels. , 2010, , .		3
107	Channel estimation and link level evaluation of adaptive beamspace MIMO systems. , 2013, , .		3
108	Interference versus filtering distortion tradeoffs in OFDM-based cognitive radios. Transactions on Emerging Telecommunications Technologies, 2013, 24, 692-708.	3.9	3

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109	V-BLAST reception for beamspace MIMO systems with limited feedback. , 2013, , .		3
110	Beamforming Techniques for Wireless MIMO Relay Networks. International Journal of Antennas and Propagation, 2014, 2014, 1-2.	1.2	3
111	Complex Envelope Second-Order Statistics in High-Altitude Platforms Communication Channels. Wireless Personal Communications, 2014, 77, 2517-2535.	2.7	3
112	V2V Communication Systems under Correlated Double-Rayleigh Fading Channels. , 2016, , .		3
113	Intervehicular communication systems under co-channel interference and outdated channel estimates. , 2016, , .		3
114	Exact SNR and SIR analysis in Poisson wireless networks. Electronics Letters, 2017, 53, 356-358.	1.0	3
115	Shadowing-Based Antenna Selection for V2V Communications. , 2018, , .		3
116	Multiple Scattering Modeling for Dual-Polarized MIMO Land Mobile Satellite Channels. IEEE Transactions on Antennas and Propagation, 2018, 66, 5657-5661.	5.1	3
117	Standardizing Security Evaluation Criteria for Connected Vehicles: A Modular Protection Profile. , 2019, , .		3
118	Machine Learning-Assisted Man Overboard Detection Using Radars. Electronics (Switzerland), 2021, 10, 1345.	3.1	3
119	Coordinates Distributions in Finite Uniformly Random Networks. IEEE Access, 2022, 10, 49005-49014.	4.2	3
120	Microcellular propagation measurements and modelling at 1.8 GHz. , 0, , .		2
121	Multipath Parameter Results for Short Range Urban Propagation Environments. , 0, , .		2
122	Performance Evaluation of Beamspace MIMO Systems with Channel Estimation in Realistic Environments. Journal of Cyber Security and Mobility, 2014, 2, 265-290.	0.7	2
123	Genetic algorithm applied to beamspaceâ€multipleâ€input and multipleâ€output singleâ€radio frequency frontâ€end reconfigurable transceivers. IET Microwaves, Antennas and Propagation, 2014, 8, 679-687.	1.4	2
124	Mobile-to-mobile communications via stratospheric relays: Relay selection and performance analysis. , 2015, , .		2
125	A new reconfigurable antenna scheme and its application to vehicle-to-vehicle communications. , 2016, , .		2
126	The Double-Generalized Gamma Distribution and Its Application to V2V Communications. , 2017, , .		2

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127	Diversity in Direct Mobile-to-Mobile Communication Systems: An Experimental Approach. , 2018, , .		2
128	Novel Results for the Multivariate Ricean Distribution With Non-Identical Parameters. IEEE Transactions on Vehicular Technology, 2019, 68, 5129-5133.	6.3	2
129	Building entry loss and capacity evaluation of a UAV-to-indoor dual-polarised MIMO channel. IET Microwaves, Antennas and Propagation, 2020, 14, 335-341.	1.4	2
130	A Complete MIMO System Built on a Single RF Communication Ends. Progress in Electromagnetics Research Symposium: [proceedings] Progress in Electromagnetics Research Symposium, 2010, 6, 559-563.	0.4	2
131	Wireless sensor networks: an energy-aware adaptive modulation scheme. , 2004, 5611, 133.		1
132	Design and analysis of a 5-element ESPAR antenna with an active PIFA. , 2014, , .		1
133	Full-duplex communications with the use of parasitic array radiators. , 2015, , .		1
134	Spatially separated single-polarized vs. colocated dual-polarized MIMO measurements. , 2017, , .		1
135	Mobile Satellite Channel Characterization. , 2017, , 69-104.		1
136	Beamspace MIMO and Degrees of Freedom. , 2014, , 45-84.		1
137	Receive Antenna Subarray Formation for MIMO Systems in Correlated Channels. , 2007, , .		0
138	A Stochastic Algorithm for Beamforming Using ESPAR Antennas. , 2008, , .		0
139	Energy efficiency evaluation of alternative MIMO — based sensor networks. , 2008, , .		0
140	UWB channel parameters in a C130 airplane. , 2009, , .		0
141	Correction to "Path-Loss and Time-Dispersion Parameters of UWB Signals in a Military Airplane" [2009 790-793]. IEEE Antennas and Wireless Propagation Letters, 2010, 9, 1285-1285.	4.0	0
142	Modeling and Simulation of 3-D Wideband HAP-MIMO Channels. , 2011, , .		0
143	On the capacity and simulation of 3-D MIMO mobile-to-mobile relay fading channels. , 2012, , .		0
144	A 3-D model for mimo mobile-to-mobile via stratospheric-relay fading channels. , 2012, , .		0

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145	A 3-D wideband MIMO channel model for mobile-to-mobile relay-based communications. , 2013, , .		0
146	Performance Analysis of a Two-Hop MIMO Mobile-to-Mobile via Stratospheric-Relay Link Employing Hierarchical Modulation. International Journal of Antennas and Propagation, 2013, 2013, 1-10.	1.2	0
147	60 GHZ WIRELESS LINKS FOR HDTV: CHANNEL CHARACTERIZATION AND ERROR PERFORMANCE EVALUATION. Progress in Electromagnetics Research C, 2013, 36, 195-205.	0.9	0
148	Spatial Modulation for V2V and V2I Communications in a Multiple Scattering Environment. , 2016, , .		0
149	Relay selection in V2V communications based on 3-D geometrical Channel modeling. , 2016, , .		0
150	Stratospheric Channel Models. , 2016, , 299-338.		0
151	Stratospheric Channel Models. , 2017, , 299-338.		0
152	A Low Complexity Communication Technique for Mobile-to-Mobile Communication Systems. , 2018, , .		0
153	A Pattern Reconfigurable Antenna System Integrated in a Truck Side Mirror. , 2019, , .		0
154	Spherical Harmonic Theory Investigations for Spherical Antenna Arrays. , 2020, , .		0
155	MIMO Techniques for 5G Systems. , 2017, , 235-277.		0
156	A reconfigurable MuPAR antenna system employing a hybrid beam-forming technique. , 2022, , .		0