Karl Woodbridge

List of Publications by Year
in descending order

104	2,354	257450	265206
papers	citations	24 h-index	42 g-index

105	105	105	1265
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On CSI and Passive Wi-Fi Radar for Opportunistic Physical Activity Recognition. IEEE Transactions on Wireless Communications, 2022, 21, 607-620.	9.2	15
2	SimHumalator: An Open-Source End-to-End Radar Simulator for Human Activity Recognition. IEEE Aerospace and Electronic Systems Magazine, 2022, 37, 6-22.	1.3	17
3	Using RF Transmissions From IoT Devices for Occupancy Detection and Activity Recognition. IEEE Sensors Journal, 2022, 22, 2484-2495.	4.7	6
4	Design of highâ€speed software defined radar with GPU accelerator. IET Radar, Sonar and Navigation, 2022, 16, 1083-1094.	1.8	2
5	Passive WiFi Radar for Human Sensing Using a Stand-Alone Access Point. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 1986-1998.	6.3	54
6	GAN Based Noise Generation to Aid Activity Recognition when Augmenting Measured WiFi Radar Data with Simulations. , 2021, , .		10
7	Respiration and Activity Detection Based on Passive Radio Sensing in Home Environments. IEEE Access, 2020, 8, 12426-12437.	4.2	12
8	Occupancy Detection and People Counting Using WiFi Passive Radar. , 2020, , .		24
9	Physical Activity Sensing via Stand-Alone WiFi Device. , 2019, , .		9
10	Doppler Based Detection of Multiple Targets in Passive Wi-Fi Radar Using Underdetermined Blind Source Separation. , 2018, , .		3
11	Exploiting WiFi Channel State Information for Residential Healthcare Informatics. , 2018, 56, 130-137.		82
12	A coherent through-wall MIMO phased array imaging radar based on time-duplexed switching. Proceedings of SPIE, 2017, , .	0.8	0
13	A low-cost through-the-wall FMCW radar for stand-off operation and activity detection. Proceedings of SPIE, 2017, , .	0.8	13
14	Joint fall and aspect angle recognition using fine-grained micro-Doppler classification. , 2017, , .		5
15	Simultaneous data collection of small maritime targets using multistatic radar and forward scatter radar. IET Radar, Sonar and Navigation, 2017, 11, 937-945.	1.8	1
16	Passive WiFi Radar: A New Technology for Urban Area Surveillance. , 2017, , 345-358.		1
17	NetRAD: Monostatic and Bistatic Sea Clutter Texture and Doppler Spectra Characterization at S-Band. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 5533-5543.	6.3	40
18	Signs of life detection using wireless passive radar. , 2016, , .		21

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19	Awireless passive radar system for real-time through-wall movement detection. IEEE Transactions on Aerospace and Electronic Systems, 2016, 52, 2596-2603.	4.7	41
20	Activity recognition based on micro-Doppler signature with in-home Wi-Fi. , 2016, , .		31
21	Train monitoring using GSM-R based passive radar. , 2016, , .		11
22	Simultaneous data collection of small maritime targets using multistatic and forward scatter radar. , 2015, , .		3
23	Database design for an experimental, dual band, polarimetric radar. , 2015, , .		0
24	Wi-Fi based passive human motion sensing for in-home healthcare applications. , 2015, , .		17
25	Phased array radar resource management using continuous double auction. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 2212-2224.	4.7	47
26	Indoor target tracking using high doppler resolution passive Wi-Fi radar. , 2015, , .		19
27	Multistatic radar: System requirements and experimental validation. , 2014, , .		27
28	Comparison between measurement and simulation of monostatic and bistatic sea clutter. , 2014, , .		3
29	Measurements and analysis of multistatic and multimodal micro-Doppler signatures for automatic target classification. , 2014, , .		2
30	A real-time high resolution passive WiFi Doppler-radar and its applications. , 2014, , .		48
31	Analysis of bistatic sea clutter - Part I: Average reflectivity. IEEE Transactions on Aerospace and Electronic Systems, 2014, 50, 1283-1292.	4.7	27
32	Analysis of bistatic sea clutter - Part II: Amplitude statistics. IEEE Transactions on Aerospace and Electronic Systems, 2014, 50, 1293-1303.	4.7	35
33	Data processing for real-time wireless passive radar. , 2014, , .		7
34	Developments in target micro-Doppler signatures analysis: radar imaging, ultrasound and through-the-wall radar. Eurasip Journal on Advances in Signal Processing, 2013, 2013, .	1.7	75
35	Extended time processing for passive bistatic radar. IET Radar, Sonar and Navigation, 2013, 7, 1012-1018.	1.8	12
36	ISAR motion parameter estimation using state-space modeling. , 2012, , .		0

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37	Performance of a multiband passive bistatic radar processing scheme-Part II. IEEE Aerospace and Electronic Systems Magazine, 2012, 27, 4-14.	1.3	20
38	Performance of a multiband passive bistatic radar processing scheme â€" Part I. IEEE Aerospace and Electronic Systems Magazine, 2012, 27, 16-25.	1.3	22
39	Multiband passive bistatic DVB-T radar range resolution improvements and implications. , 2012, , .		8
40	Passive bistatic radar experiments from an airborne platform. IEEE Aerospace and Electronic Systems Magazine, 2012, 27, 50-55.	1.3	49
41	Through-the-Wall Sensing of Personnel Using Passive Bistatic WiFi Radar at Standoff Distances. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1218-1226.	6.3	185
42	Frequency-agile non-coherent ultrasound radar for collection of micro-Doppler signatures. , 2011, , .		8
43	Analysis of the multistatic ambiguity function for coherent and incoherent detectors. , 2011, , .		1
44	Ambiguity Function Analysis of Wireless LAN Transmissions for Passive Radar. IEEE Transactions on Aerospace and Electronic Systems, 2011, 47, 240-264.	4.7	75
45	Statistical analysis of simultaneous monostatic and bistatic sea clutter at low grazing angles. Electronics Letters, 2011, 47, 621.	1.0	26
46	Ambiguity Functions for Spatially Coherent and Incoherent Multistatic Radar. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 230-245.	4.7	52
47	Information theoretic measures for MFR tracking control. , 2010, , .		4
48	Radar Micro-Doppler Signature Classification using Dynamic Time Warping. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 1078-1096.	4.7	63
49	Analysis of the performance of a multiband passive bistatic radar processing scheme. , 2010, , .		19
50	Passive bistatic WiMAX radar for marine surveillance. , 2010, , .		39
51	Multistatic micro-Doppler radar signatures of personnel targets. IET Signal Processing, 2010, 4, 224.	1.5	56
52	Bat-inspired ultrasound tomography in air. , 2010, , .		5
53	Impact of flight trajectory on the detection and selection of flowers by nectar-feeding bats. , 2010, , .		2
54	Target detection in high clutter using passive bistatic WiFi radar. , 2009, , .		30

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55	Flower classification by bats: Radar comparisons. IEEE Aerospace and Electronic Systems Magazine, 2009, 24, 4-7.	1.3	9
56	Classification of flowers by bats: comparison with the radar case. , 2009, , .		4
57	Frequency diverse array: Simulation and design. , 2009, , .		8
58	Radar classification evaluation. , 2008, , .		11
59	Multistatic Micro-Doppler Signature of personnel. , 2008, , .		12
60	Naïve Bayesian radar micro-doppler recognition. , 2008, , .		17
61	Netted Radar Theory and Experiments. , 2007, , .		2
62	Comparison of the 2D and 3D Netted Radar Ambiguity Function. , 2006, , .		2
63	Characterisation of a Multistatic Radar System. , 2006, , .		3
64	Template Based Micro-Doppler Signature Classification. , 2006, , .		22
65	Realisation and Evaluation of a Low Cost Netted Radar System. , 2006, , .		9
66	Micro-Doppler Signature Classification. , 2006, , .		10
67	Netted Radar Sensitivity and the Ambiguity Function. , 2006, , .		3
68	New satellite communications technologies for ATM. Air & Space Europe, 1999, 1, 73-80.	0.0	0
69	Application of intermixing topâ€type GaAs/AlAs distributed Bragg reflectors for series resistance reduction in vertical cavity devices. Journal of Applied Physics, 1995, 77, 4921-4926.	2.5	7
70	A comparison of 1.55 mu m distributed Bragg reflector stacks for use in multi quantum well micro resonator modulators. Semiconductor Science and Technology, 1995, 10, 1283-1286.	2.0	4
71	Highly doped 1.55 Âµm GaxIn1-xAs/InP distributed Bragg reflector stacks. Electronics Letters, 1994, 30, 1526-1527.	1.0	9
72	Voltage-controlled distributed Bragg reflectors for modulation and integrated power monitoring of vertical-cavity surface-emitting lasers. Electronics Letters, 1994, 30, 2146-2147.	1.0	0

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73	Time-resolved DFWM, excite/probe and transient grating studies of InxGa1-xAs/GaAs superlattices. Semiconductor Science and Technology, 1994, 9, 1096-1101.	2.0	5
74	GaAs / AlGaAs pin MQW structures grown on patterned Si substrates. Journal of Crystal Growth, 1993, 127, 112-115.	1.5	3
75	High reflectivity and low resistance 1.55Î¼m Al0.65In0.35As/Ga0.63In0.37As strained quarter wave Bragg reflector stack. Electronics Letters, 1993, 29, 1947.	1.0	7
76	An optical study of encapsulant thickness-controlled interdiffusion of asymmetric GaAs quantum well material. Semiconductor Science and Technology, 1993, 8, 1791-1796.	2.0	8
77	Observation of many-body effects and band-gap renormalization in low-dimensional systems with built-in piezoelectric fields. Physical Review B, 1993, 48, 18010-18015.	3.2	9
78	Optical emission from GaAs/AlGaAspâ€ìâ€nmultiquantum well structures grown on patterned Si substrates. Applied Physics Letters, 1993, 62, 2929-2931.	3.3	3
79	Optical properties of (001)- and (111)-oriented (In,Ga)As-GaAs strained-layer superlattices. Physical Review B, 1992, 45, 4494-4497.	3.2	9
80	In incorporation in GaInAs grown by molecular beam epitaxy. Applied Physics Letters, 1992, 60, 2911-2913.	3.3	7
81	GaAs multiple quantum well microresonator modulators grown on silicon substrates. Optical and Quantum Electronics, 1992, 24, S177-S192.	3.3	6
82	Raman scattering measurements on InGaAs/AlAs strained MQWs. Superlattices and Microstructures, 1992, 11, 403-407.	3.1	2
83	Transport properties of a gated, double quantum well HEMT. Semiconductor Science and Technology, 1991, 6, 616-618.	2.0	4
84	Delta-doping of GaAs and Al0.33Ga0.67As with Sn, Si and Be: a comparative study. Journal of Crystal Growth, 1991, 111, 239-245.	1.5	76
85	Indium incorporation in GaInAs/GaAs quantum wells grown on GaAs. Journal of Crystal Growth, 1991, 111, 339-343.	1.5	9
86	Valence-band coupling in thin (Ga,In)As-AlAs strained quantum wells. Physical Review B, 1991, 44, 1942-1945.	3.2	28
87	Hole-state reversal and the role of residual strain in (In,Ga)As-GaAs superlattices. Physical Review B, 1991, 43, 12393-12400.	3.2	10
88	Spectroscopic studies of miniband structure and band mixing in superlattices. Superlattices and Microstructures, 1990, 8, 151-154.	3.1	5
89	Excitons associated with miniband dispersion in (InGa)Asî—¸GaAs strained layer superlattices. Superlattices and Microstructures, 1990, 7, 303-308.	3.1	4
90	Evolution of the electronic states of coupled (In,Ga)As-GaAs quantum wells into superlattice minibands. Physical Review B, 1990, 42, 3024-3029.	3.2	17

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91	Hot-exciton relaxation in (In,Ga)As-AlAs strained quantum wells. Physical Review B, 1990, 42, 5142-5146.	3.2	14
92	Miniband dispersion in (In,Ga)As-GaAs strained-layer superlattices. Physical Review B, 1990, 42, 1326-1331.	3.2	39
93	Exciton localization inInxGa1â^'xAs-GaAs coupled quantum-well structures. Physical Review B, 1990, 41, 1095-1099.	3.2	35
94	Spontaneous recombination current in InGaAs/GaAs quantum well lasers. Applied Physics Letters, 1990, 57, 1482-1484.	3.3	12
95	Observations and calculations of the exciton binding energy in (In,Ga)As/GaAs strained-quantum-well heterostructures. Physical Review B, 1990, 41, 1090-1094.	3.2	106
96	(InGa)Asî—¸GaAs strained layer quantum wells â€" excitonic properties and electronic structure. Surface Science, 1990, 228, 310-313.	1.9	3
97	Experimental study of switching in a p-i(MQW)-n vertical coupler. IEEE Photonics Technology Letters, 1989, 1, 373-375.	2.5	15
98	Experimental confirmation of a sum rule for roomâ€temperature electroabsorption in GaAsâ€AlGaAs multiple quantum well structures. Applied Physics Letters, 1988, 52, 345-347.	3.3	32
99	RHEED studies of heterojunction and quantum well formation during MBE growth â€" from multiple scattering to band offsets. Surface Science, 1986, 168, 423-438.	1.9	163
100	Observation of interfacial plasmons on MBE-grown GaAs by high-resolution electron-energy-loss spectroscopy. Solid State Communications, 1986, 59, 703-706.	1.9	29
101	Photoluminescence decay times in (AlGa)As î—¸ GaAs multiple quantum well heterostructures. Superlattices and Microstructures, 1985, 1, 173-176.	3.1	21
102	Dependence of threshold current on the number of wells in AlGaAsâ€GaAs quantum well lasers. Applied Physics Letters, 1985, 47, 193-195.	3.3	22
103	Effects of prelayers on minorityâ€carrier lifetime in GaAs/AlGaAs double heterostructures grown by molecular beam epitaxy. Applied Physics Letters, 1984, 45, 1227-1229.	3.3	68
104	Free excitons in room-temperature photoluminescence of GaAs-AlxGa1â^'xAsmultiple quantum wells. Physical Review B, 1983, 28, 7381-7383.	3.2	66