Karl Woodbridge

List of Publications by Year
in descending order

104 papers	2,354 citations	24 h-index (257450)	42 g-index (265206)
105 all docs	105 docs citations	105 times ranked	1265 citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	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
3	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
4	Exploiting WiFi Channel State Information for Residential Healthcare Informatics. , 2018, 56, 130-137.		82
5	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
6	Ambiguity Function Analysis of Wireless LAN Transmissions for Passive Radar. IEEE Transactions on Aerospace and Electronic Systems, 2011, 47, 240-264.	4.7	75
7	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
8	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
9	Free excitons in room-temperature photoluminescence of GaAs-AlxGa1â^'xAsmultiple quantum wells. Physical Review B, 1983, 28, 7381-7383.	3.2	66
10	Radar Micro-Doppler Signature Classification using Dynamic Time Warping. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 1078-1096.	4.7	63
11	Multistatic micro-Doppler radar signatures of personnel targets. IET Signal Processing, 2010, 4, 224.	1.5	56
12	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
13	Ambiguity Functions for Spatially Coherent and Incoherent Multistatic Radar. IEEE Transactions on Aerospace and Electronic Systems, 2010, 46, 230-245.	4.7	52
14	Passive bistatic radar experiments from an airborne platform. IEEE Aerospace and Electronic Systems Magazine, 2012, 27, 50-55.	1.3	49
15	A real-time high resolution passive WiFi Doppler-radar and its applications. , 2014, , .		48
16	Phased array radar resource management using continuous double auction. IEEE Transactions on Aerospace and Electronic Systems, 2015, 51, 2212-2224.	4.7	47
17	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
18	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

#	Article	IF	Citations
19	Miniband dispersion in (In,Ga)As-GaAs strained-layer superlattices. Physical Review B, 1990, 42, 1326-1331.	3.2	39
20	Passive bistatic WiMAX radar for marine surveillance. , 2010, , .		39
21	Exciton localization inInxGa1â^'xAs-GaAs coupled quantum-well structures. Physical Review B, 1990, 41, 1095-1099.	3.2	35
22	Analysis of bistatic sea clutter - Part II: Amplitude statistics. IEEE Transactions on Aerospace and Electronic Systems, 2014, 50, 1293-1303.	4.7	35
23	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
24	Activity recognition based on micro-Doppler signature with in-home Wi-Fi. , 2016, , .		31
25	Target detection in high clutter using passive bistatic WiFi radar. , 2009, , .		30
26	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
27	Valence-band coupling in thin (Ga,In)As-AlAs strained quantum wells. Physical Review B, 1991, 44, 1942-1945.	3.2	28
28	Multistatic radar: System requirements and experimental validation. , 2014, , .		27
29	Analysis of bistatic sea clutter - Part I: Average reflectivity. IEEE Transactions on Aerospace and Electronic Systems, 2014, 50, 1283-1292.	4.7	27
30	Statistical analysis of simultaneous monostatic and bistatic sea clutter at low grazing angles. Electronics Letters, 2011, 47, 621.	1.0	26
31	Occupancy Detection and People Counting Using WiFi Passive Radar. , 2020, , .		24
32	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
33	Template Based Micro-Doppler Signature Classification. , 2006, , .		22
34	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
35	Photoluminescence decay times in (AlGa)As î—¸ GaAs multiple quantum well heterostructures. Superlattices and Microstructures, 1985, 1, 173-176.	3.1	21
36	Signs of life detection using wireless passive radar. , 2016, , .		21

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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	Analysis of the performance of a multiband passive bistatic radar processing scheme. , 2010, , .		19
39	Indoor target tracking using high doppler resolution passive Wi-Fi radar. , 2015, , .		19
40	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
41	Na&#x00EF;ve Bayesian radar micro-doppler recognition. , 2008, , .		17
42	Wi-Fi based passive human motion sensing for in-home healthcare applications. , 2015, , .		17
43	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
44	Experimental study of switching in a p-i(MQW)-n vertical coupler. IEEE Photonics Technology Letters, 1989, 1, 373-375.	2.5	15
45	On CSI and Passive Wi-Fi Radar for Opportunistic Physical Activity Recognition. IEEE Transactions on Wireless Communications, 2022, 21, 607-620.	9.2	15
46	Hot-exciton relaxation in (In,Ga)As-AlAs strained quantum wells. Physical Review B, 1990, 42, 5142-5146.	3.2	14
47	A low-cost through-the-wall FMCW radar for stand-off operation and activity detection. Proceedings of SPIE, 2017, , .	0.8	13
48	Spontaneous recombination current in InGaAs/GaAs quantum well lasers. Applied Physics Letters, 1990, 57, 1482-1484.	3.3	12
49	Multistatic Micro-Doppler Signature of personnel. , 2008, , .		12
50	Extended time processing for passive bistatic radar. IET Radar, Sonar and Navigation, 2013, 7, 1012-1018.	1.8	12
51	Respiration and Activity Detection Based on Passive Radio Sensing in Home Environments. IEEE Access, 2020, 8, 12426-12437.	4.2	12
52	Radar classification evaluation. , 2008, , .		11
53	Train monitoring using GSM-R based passive radar. , 2016, , .		11
54	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

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55	Micro-Doppler Signature Classification. , 2006, , .		10
56	GAN Based Noise Generation to Aid Activity Recognition when Augmenting Measured WiFi Radar Data with Simulations. , 2021, , .		10
57	Indium incorporation in GaInAs/GaAs quantum wells grown on GaAs. Journal of Crystal Growth, 1991, 111, 339-343.	1.5	9
58	Optical properties of (001)- and (111)-oriented (In,Ga)As-GaAs strained-layer superlattices. Physical Review B, 1992, 45, 4494-4497.	3.2	9
59	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
60	Highly doped 1.55 Âµm GaxIn1-xAs/InP distributed Bragg reflector stacks. Electronics Letters, 1994, 30, 1526-1527.	1.0	9
61	Realisation and Evaluation of a Low Cost Netted Radar System. , 2006, , .		9
62	Flower classification by bats: Radar comparisons. IEEE Aerospace and Electronic Systems Magazine, 2009, 24, 4-7.	1.3	9
63	Physical Activity Sensing via Stand-Alone WiFi Device. , 2019, , .		9
64	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
65	Frequency diverse array: Simulation and design. , 2009, , .		8
66	Frequency-agile non-coherent ultrasound radar for collection of micro-Doppler signatures. , 2011, , .		8
67	Multiband passive bistatic DVB-T radar range resolution improvements and implications. , 2012, , .		8
68	In incorporation in GaInAs grown by molecular beam epitaxy. Applied Physics Letters, 1992, 60, 2911-2913.	3.3	7
69	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
70	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
71	Data processing for real-time wireless passive radar. , 2014, , .		7
72	GaAs multiple quantum well microresonator modulators grown on silicon substrates. Optical and Quantum Electronics, 1992, 24, S177-S192.	3.3	6

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73	Using RF Transmissions From IoT Devices for Occupancy Detection and Activity Recognition. IEEE Sensors Journal, 2022, 22, 2484-2495.	4.7	6
74	Spectroscopic studies of miniband structure and band mixing in superlattices. Superlattices and Microstructures, 1990, 8, 151-154.	3.1	5
75	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
76	Bat-inspired ultrasound tomography in air. , 2010, , .		5
77	Joint fall and aspect angle recognition using fine-grained micro-Doppler classification. , 2017, , .		5
78	Excitons associated with miniband dispersion in (InGa)Asî—¸GaAs strained layer superlattices. Superlattices and Microstructures, 1990, 7, 303-308.	3.1	4
79	Transport properties of a gated, double quantum well HEMT. Semiconductor Science and Technology, 1991, 6, 616-618.	2.0	4
80	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
81	Classification of flowers by bats: comparison with the radar case. , 2009, , .		4
82	Information theoretic measures for MFR tracking control. , 2010, , .		4
83	(InGa)Asî—¸GaAs strained layer quantum wells â€" excitonic properties and electronic structure. Surface Science, 1990, 228, 310-313.	1.9	3
84	GaAs / AlGaAs pin MQW structures grown on patterned Si substrates. Journal of Crystal Growth, 1993, 127, 112-115.	1.5	3
85	Optical emission from GaAs/AlGaAspâ€‹â€‹multiquantum well structures grown on patterned Si substrates. Applied Physics Letters, 1993, 62, 2929-2931.	3.3	3
86	Characterisation of a Multistatic Radar System. , 2006, , .		3
87	Netted Radar Sensitivity and the Ambiguity Function. , 2006, , .		3
88	Comparison between measurement and simulation of monostatic and bistatic sea clutter. , 2014, , .		3
89	Simultaneous data collection of small maritime targets using multistatic and forward scatter radar. , 2015, , .		3
90	Doppler Based Detection of Multiple Targets in Passive Wi-Fi Radar Using Underdetermined Blind Source Separation. , 2018, , .		3

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91	Raman scattering measurements on InGaAs/AlAs strained MQWs. Superlattices and Microstructures, 1992, 11, 403-407.	3.1	2
92	Comparison of the 2D and 3D Netted Radar Ambiguity Function. , 2006, , .		2
93	Netted Radar Theory and Experiments. , 2007, , .		2
94	Impact of flight trajectory on the detection and selection of flowers by nectar-feeding bats. , 2010, , .		2
95	Measurements and analysis of multistatic and multimodal micro-Doppler signatures for automatic target classification. , 2014, , .		2
96	Design of highâ€speed software defined radar with GPU accelerator. IET Radar, Sonar and Navigation, 2022, 16, 1083-1094.	1.8	2
97	Analysis of the multistatic ambiguity function for coherent and incoherent detectors. , 2011, , .		1
98	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
99	Passive WiFi Radar: A New Technology for Urban Area Surveillance. , 2017, , 345-358.		1
100	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
101	New satellite communications technologies for ATM. Air & Space Europe, 1999, 1, 73-80.	0.0	0
102	ISAR motion parameter estimation using state-space modeling. , 2012, , .		0
103	Database design for an experimental, dual band, polarimetric radar. , 2015, , .		0
104	A coherent through-wall MIMO phased array imaging radar based on time-duplexed switching. Proceedings of SPIE, 2017, , .	0.8	0