

Ulrich Kuhl

List of Publications by Year in descending order

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103
papers

4,226
citations

126708

33
h-index

114278

63
g-index

105
all docs

105
docs citations

105
times ranked

2840
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamically encircling an exceptional point for asymmetric mode switching. Nature, 2016, 537, 76-79.	13.7	684
2	Selective enhancement of topologically induced interface states in a dielectric resonator chain. Nature Communications, 2015, 6, 6710.	5.8	416
3	Experimental observation of the mobility edge in a waveguide with correlated disorder. Applied Physics Letters, 2000, 77, 633-635.	1.5	198
4	Freak Waves in the Linear Regime: A Microwave Study. Physical Review Letters, 2010, 104, 093901.	2.9	189
5	Topological Transition of Dirac Points in a Microwave Experiment. Physical Review Letters, 2013, 110, 033902.	2.9	137
6	First Experimental Realization of the Dirac Oscillator. Physical Review Letters, 2013, 111, 170405.	2.9	124
7	Microwave Realization of the Hofstadter Butterfly. Physical Review Letters, 1998, 80, 3232-3235.	2.9	102
8	Random anti-lasing through coherent perfect absorption in a disordered medium. Nature, 2019, 567, 351-355.	13.7	95
9	Tight-binding couplings in microwave artificial graphene. Physical Review B, 2013, 88, .	1.1	90
10	Direct Processes in Chaotic Microwave Cavities in the Presence of Absorption. Physical Review Letters, 2005, 94, 144101.	2.9	85
11	Enhancement of Localization in One-Dimensional Random Potentials with Long-Range Correlations. Physical Review Letters, 2008, 100, 126402.	2.9	82
12	Classical wave experiments on chaotic scattering. Journal of Physics A, 2005, 38, 10433-10463.	1.6	81
13	Dynamical Tunneling in Mushroom Billiards. Physical Review Letters, 2008, 100, 174103.	2.9	81
14	Distribution of Reflection Coefficients in Absorbing Chaotic Microwave Cavities. Physical Review Letters, 2003, 91, 174102.	2.9	80
15	Dirac point and edge states in a microwave realization of tight-binding graphene-like structures. Physical Review B, 2010, 82, .	1.1	75
16	Effective Hamiltonian for a microwave billiard with attached waveguide. Physical Review E, 2002, 65, 066211.	0.8	65
17	Scarred and Chaotic Field Distributions in a Three-Dimensional Sinai-Microwave Resonator. Physical Review Letters, 1998, 80, 1030-1033.	2.9	64
18	Probing Decoherence through Fano Resonances. Physical Review Letters, 2010, 105, 056801.	2.9	63

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19	Resonance Widths in Open Microwave Cavities Studied by Harmonic Inversion. Physical Review Letters, 2008, 100, 254101.	2.9	62
20	Microwave Realization of the Gaussian Symplectic Ensemble. Physical Review Letters, 2016, 117, 064101.	2.9	54
21	Global versus Local Billiard Level Dynamics: The Limits of Universality. Physical Review Letters, 1999, 82, 2026-2029.	2.9	50
22	Tunable Fano resonances in transport through microwave billiards. Physical Review E, 2004, 69, 046208.	0.8	50
23	Manipulation of edge states in microwave artificial graphene. New Journal of Physics, 2014, 16, 113023.	1.2	46
24	Focusing inside Disordered Media with the Generalized Wigner-Smith Operator. Physical Review Letters, 2017, 119, 033903.	2.9	46
25	Partial chiral symmetry-breaking as a route to spectrally isolated topological defect states in two-dimensional artificial materials. 2D Materials, 2017, 4, 025008.	2.0	41
26	One dimensional Kronig-Penney model with positional disorder: Theory versus experiment. Physical Review B, 2009, 80, .	1.1	38
27	Experimental Tuning of Transport Regimes in Hyperuniform Disordered Photonic Materials. Physical Review Letters, 2020, 125, 127402.	2.9	38
28	Measurement of Long-Range Wave-Function Correlations in an Open Microwave Billiard. Physical Review Letters, 2005, 94, 036804.	2.9	37
29	Optimal wave fields for micromanipulation in complex scattering environments. Nature Photonics, 2020, 14, 149-153.	15.6	37
30	Experimental Observation of a Fundamental Length Scale of Waves in Random Media. Physical Review Letters, 2013, 111, 183902.	2.9	36
31	Experimental Width Shift Distribution: A Test of Nonorthogonality for Local and Global Perturbations. Physical Review Letters, 2014, 113, 224101.	2.9	36
32	Microwave experiments using open chaotic cavities in the realm of the effective Hamiltonian formalism. Fortschritte Der Physik, 2013, 61, 404-419.	1.5	35
33	Mixing of wavefunctions in rectangular microwave billiards. European Physical Journal B, 2000, 17, 253-259.	0.6	34
34	Spectral properties of microwave graphs with local absorption. Physical Review E, 2014, 89, 022925.	0.8	34
35	Experimental Observation of the Spectral Gap in Microwave n -Disk Systems. Physical Review Letters, 2013, 110, 164102.	2.9	33
36	Correlations of electromagnetic fields in chaotic cavities. Europhysics Letters, 1999, 46, 134-140.	0.7	30

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37	Experimental verification of topologically induced vortices inside a billiard. Journal of Physics A, 1999, 32, 8225-8230.	1.6	28
38	Disordered graphene and boron nitride in a microwave tight-binding analog. Physical Review B, 2013, 87, .	1.1	28
39	Microwave realization of quasi-one-dimensional systems with correlated disorder. Physical Review B, 2011, 83, .	1.1	27
40	Weyl asymptotics: From closed to open systems. Physical Review E, 2012, 86, 066205.	0.8	27
41	Microwave fidelity studies by varying antenna coupling. Physical Review E, 2010, 82, 036207.	0.8	26
42	Experimental Observation of Resonance-Assisted Tunneling. Physical Review Letters, 2015, 115, 104101.	2.9	26
43	Observation of supersymmetric pseudo-Landau levels in strained microwave graphene. Light: Science and Applications, 2020, 9, 146.	7.7	26
44	Microwave Experiments Simulating Quantum Search and Directed Transport in Artificial Graphene. Physical Review Letters, 2015, 114, 110501.	2.9	25
45	Wave functions, nodal domains, flow, and vortices in open microwave systems. European Physical Journal: Special Topics, 2007, 145, 103-123.	1.2	23
46	Statistics of the electromagnetic response of a chaotic reverberation chamber. Advanced Electromagnetics, 2015, 4, 38.	0.7	22
47	Algebraic Fidelity Decay for Local Perturbations. Physical Review Letters, 2008, 100, 124101.	2.9	21
48	Probing Localization in Absorbing Systems via Loschmidt Echos. Physical Review Letters, 2009, 102, 253901.	2.9	21
49	Microwave Realization of the Chiral Orthogonal, Unitary, and Symplectic Ensembles. Physical Review Letters, 2020, 124, 116801.	2.9	21
50	Density and correlation functions of vortex and saddle points in open billiard systems. Physical Review E, 2009, 79, 016203.	0.8	20
51	Energy landscape in a Penrose tiling. Physical Review B, 2016, 93, .	1.1	18
52	Lossy chaotic electromagnetic reverberation chambers: Universal statistical behavior of the vectorial field. Physical Review E, 2016, 93, 032108.	0.8	18
53	Optimal Multiplexing of Spatially Encoded Information across Custom-Tailored Configurations of a Metasurface-Tunable Chaotic Cavity. Physical Review Applied, 2020, 13, .	1.5	18
54	Current and Vorticity Auto Correlation Functions in Open Microwave Billiards. Progress of Theoretical Physics Supplement, 2003, 150, 105-114.	0.2	17

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55	Fano resonances and decoherence in transport through quantum dots. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2005, 29, 325-333.	1.3	16
56	Measurement of the Goos-Hänchen shift in a microwave cavity. <i>New Journal of Physics</i> , 2011, 13, 023013.	1.2	16
57	<i>In situ</i> realization of particlelike scattering states in a microwave cavity. <i>Physical Review A</i> , 2018, 97, .	1.0	16
58	On the theory of cavities with point-like perturbations: part I. General theory. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008, 41, 275101.	0.7	15
59	Waveguide photonic limiters based on topologically protected resonant modes. <i>Physical Review B</i> , 2017, 95, .	1.1	15
60	Transport gap engineering by contact geometry in graphene nanoribbons: Experimental and theoretical studies on artificial materials. <i>Physical Review B</i> , 2017, 95, .	1.1	15
61	Spectra and spectral correlations of microwave graphs with symplectic symmetry. <i>Physical Review E</i> , 2018, 97, 022204.	0.8	15
62	Non-linear coherent perfect absorption in the proximity of exceptional points. <i>Communications Physics</i> , 2022, 5, .	2.0	15
63	Microwave studies of chaotic billiards and disordered systems. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 9, 571-577.	1.3	13
64	Surface scattering and band gaps in rough waveguides and nanowires. <i>Physical Review B</i> , 2012, 86, .	1.1	13
65	Formation and interaction of resonance chains in the open three-disk system. <i>New Journal of Physics</i> , 2014, 16, 033029.	1.2	13
66	Fluctuations in an established transmission in the presence of a complex environment. <i>Physical Review E</i> , 2017, 96, 032221.	0.8	13
67	Encircling exceptional points as a non-Hermitian extension of rapid adiabatic passage. <i>Physical Review A</i> , 2020, 102, .	1.0	13
68	Non-Hermitian C -Symmetric Spectral Protection of Nonlinear Defect Modes. <i>Physical Review Letters</i> , 2020, 125, 113901.	2.9	13
69	Microwave transmission spectra in regular and irregular one-dimensional scattering arrangements. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2001, 9, 384-388.	1.3	12
70	Transport studies in three-terminal microwave graphs with orthogonal, unitary, and symplectic symmetry. <i>Physical Review B</i> , 2018, 98, .	1.1	11
71	Microwave resonator lattices for topological photonics [Invited]. <i>Optical Materials Express</i> , 2021, 11, 629.	1.6	11
72	Fidelity decay for local perturbations: Microwave evidence for oscillating decay exponents. <i>Physical Review E</i> , 2011, 83, 016214.	0.8	10

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73	Self-Shielded Topological Receiver Protectors. <i>Physical Review Applied</i> , 2020, 13, .	1.5	9
74	Experimental Realization of Optimal Energy Storage in Resonators Embedded in Scattering Media. <i>Laser and Photonics Reviews</i> , 2021, 15, 2000335.	4.4	9
75	Investigating dynamical tunnelling in open quantum dots by means of a soft-walled microwave-cavity analogue. <i>Journal of Physics Condensed Matter</i> , 2005, 17, L191-L198.	0.7	8
76	Microwave emulations and tight-binding calculations of transport in polyacetylene. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2017, 381, 24-29.	0.9	8
77	Current vortices in aromatic carbon molecules. <i>Physical Review B</i> , 2020, 102, .	1.1	8
78	Transmission in waveguides with compositional and structural disorder: experimental effects of disorder cross-correlations. <i>New Journal of Physics</i> , 2012, 14, 013048.	1.2	7
79	Implementing nonuniversal features with a random matrix theory approach: Application to space-to-configuration multiplexing. <i>Physical Review E</i> , 2020, 102, 010201.	0.8	7
80	Experimental Study of Generic Billiards with Microwave Resonators. <i>Progress of Theoretical Physics Supplement</i> , 2000, 139, 283-300.	0.2	6
81	Schematic baryon models, their tight binding description and their microwave realization. <i>New Journal of Physics</i> , 2013, 15, 123014.	1.2	6
82	Quantum stress in chaotic billiards. <i>Physical Review E</i> , 2008, 77, 066209.	0.8	5
83	Compounding approach for univariate time series with nonstationary variances. <i>Physical Review E</i> , 2015, 92, 062901.	0.8	5
84	Microwave Limiters Implemented by Coupled Dielectric Resonators Based on a Topological Defect Mode and CT-Symmetry Breaking. <i>Acta Physica Polonica A</i> , 2019, 136, 790-796.	0.2	5
85	Global and local level dynamics in chaotic microwave billiards. <i>Annalen Der Physik</i> , 1999, 8, 733-741.	0.9	4
86	Universal intensity statistics in a chaotic reverberation chamber to refine the criterion of statistical field uniformity. , 2015, , .		4
87	Diffuse field cross-correlation in a programmable-metasurface-stirred reverberation chamber. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	4
88	Uncorrelated configurations and field uniformity in reverberation chambers stirred by reconfigurable metasurfaces. <i>Applied Physics Letters</i> , 2021, 118, .	1.5	4
89	Microwave experiments in the realm of fidelity. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20150158.	1.6	3
90	Microwave graph analogs for the voltage drop in three-terminal devices with orthogonal, unitary, and symplectic symmetry. <i>Physical Review E</i> , 2022, 105, 014202.	0.8	3

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91	Sharp diffraction peaks from chaotic structures. Chaos, 1997, 7, 577-589.	1.0	2
92	Level dynamics in pseudointegrable billiards: an experimental study. Physica A: Statistical Mechanics and Its Applications, 2004, 344, 523-529.	1.2	2
93	Channel cross correlations in transport through complex media. Physical Review B, 2016, 94, .	1.1	2
94	Diffuse field cross-correlations: Scattering theory and electromagnetic experiments. Physical Review E, 2021, 104, 044204.	0.8	2
95	Spectral duality in graphs and microwave networks. Physical Review E, 2021, 104, 045211.	0.8	2
96	Localisation and transport in bidimensional random models with separable Hamiltonians. New Journal of Physics, 2019, 21, 073041.	1.2	1
97	Microwave experiments on correlated disorder. , 2010, , .		1
98	Transport in Quasi-One Dimensional Correlated Random Media. , 2010, , .		1
99	Fidelity in Quasi-1D Systems as a Probe for Anderson Localization. Acta Physica Polonica A, 2009, 116, 756-764.	0.2	1
100	Microwave studies of chaotic billiards and disordered systems. , 2000, , 515-528.		0
101	Wave front shaping in quasi-one-dimensional waveguides. , 2016, , .		0
102	Refining the Experimental Extraction of the Number of Independent Samples in a Mode-Stirred Reverberation Chamber. , 2018, , .		0
103	Chiral Photonic Limiters Utilizing Topologically Protected Defect States. , 2017, , .		0