

Andreas Amann

List of Publications by Year in descending order

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87
papers

2,923
citations

172386

29
h-index

182361

51
g-index

90
all docs

90
docs citations

90
times ranked

1979
citing authors

#	ARTICLE	IF	CITATIONS
1	Synchronization is Enhanced in Weighted Complex Networks. <i>Physical Review Letters</i> , 2005, 94, 218701.	2.9	418
2	Synchronization in Complex Networks with Age Ordering. <i>Physical Review Letters</i> , 2005, 94, 138701.	2.9	167
3	Magnetic Field-Induced Ferroelectric Switching in Multiferroic Aurivillius Phase Thin Films at Room Temperature. <i>Journal of the American Ceramic Society</i> , 2013, 96, 2339-2357.	1.9	154
4	Dynamics of light propagation in spatiotemporal dielectric structures. <i>Physical Review E</i> , 2007, 75, 046607.	0.8	124
5	Giant Improvement of Time-Delayed Feedback Control by Spatio-Temporal Filtering. <i>Physical Review Letters</i> , 2002, 89, 074101.	2.9	95
6	Synchronization in dynamical networks: Evolution along commutative graphs. <i>Physical Review E</i> , 2006, 74, 016102.	0.8	91
7	Surfing the High Energy Output Branch of Nonlinear Energy Harvesters. <i>Physical Review Letters</i> , 2016, 117, 197701.	2.9	83
8	Asymmetric Pentagonal Metal Meshes for Flexible Transparent Electrodes and Heaters. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 4932-4940.	4.0	80
9	Comparison of time-delayed feedback schemes for spatiotemporal control of chaos in a reaction-diffusion system with global coupling. <i>Physical Review E</i> , 2002, 66, 016213.	0.8	74
10	Noise-Induced Front Motion: Signature of a Global Bifurcation. <i>Physical Review Letters</i> , 2006, 96, 244104.	2.9	73
11	Emerging Meso- and Macroscales from Synchronization of Adaptive Networks. <i>Physical Review Letters</i> , 2011, 107, 234103.	2.9	73
12	A nonlinear stretching based electromagnetic energy harvester on FR4 for wideband operation. <i>Smart Materials and Structures</i> , 2015, 24, 015013.	1.8	68
13	Some basic remarks on eigenmode expansions of time-delay dynamics. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 373, 191-202.	1.2	65
14	All-optical memory based on the injection locking bistability of a two-color laser diode. <i>Optics Express</i> , 2009, 17, 6293.	1.7	56
15	Synchronizing weighted complex networks. <i>Chaos</i> , 2006, 16, 015106.	1.0	55
16	Mean-field approximation of time-delayed feedback control of noise-induced oscillations in the Van der Pol system. <i>Europhysics Letters</i> , 2005, 71, 366-372.	0.7	54
17	Time-delay autosynchronization of the spatiotemporal dynamics in resonant tunneling diodes. <i>Physical Review E</i> , 2003, 68, 026204.	0.8	53
18	Dynamic scenarios of multistable switching in semiconductor superlattices. <i>Physical Review E</i> , 2001, 63, 066207.	0.8	46

#	ARTICLE	IF	CITATIONS
19	Chaotic front dynamics in semiconductor superlattices. <i>Physical Review B</i> , 2002, 65, .	1.1	46
20	Improvement of time-delayed feedback control by periodic modulation: Analytical theory of Floquet mode control scheme. <i>Physical Review E</i> , 2003, 67, 026222.	0.8	44
21	Analytical Limitation for Time-Delayed Feedback Control in Autonomous Systems. <i>Physical Review Letters</i> , 2012, 109, 154101.	2.9	44
22	Self-stabilization of high-frequency oscillations in semiconductor superlattices by time-delay autosynchronization. <i>Physical Review E</i> , 2003, 68, 066208.	0.8	39
23	Combined Effect of Bistability and Mechanical Impact on the Performance of a Nonlinear Electromagnetic Vibration Energy Harvester. <i>IEEE/ASME Transactions on Mechatronics</i> , 2016, 21, 727-739.	3.7	39
24	Tapered nonlinear vibration energy harvester for powering Internet of Things. <i>Applied Energy</i> , 2021, 283, 116267.	5.1	38
25	Magnetic Tuning of Nonlinear MEMS Electromagnetic Vibration Energy Harvester. <i>Journal of Microelectromechanical Systems</i> , 2017, 26, 539-549.	1.7	35
26	Hybrid Model for Chaotic Front Dynamics: From Semiconductors to Water Tanks. <i>Physical Review Letters</i> , 2003, 91, 066601.	2.9	31
27	Spectral manipulation in Fabry-Perot lasers: perturbative inverse scattering approach. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2006, 23, 1046.	0.9	30
28	Noise-Assisted Crystallization of Opal Films. <i>Advanced Functional Materials</i> , 2012, 22, 1812-1821.	7.8	30
29	Design of Single-Mode and Two-Color Fabry-Perot Lasers With Patterned Refractive Index. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2007, 13, 1157-1163.	1.9	29
30	High Figure of Merit Nonlinear Microelectromagnetic Energy Harvesters for Wideband Applications. <i>Journal of Microelectromechanical Systems</i> , 2017, 26, 273-282.	1.7	29
31	Antiphase dynamics in a multimode semiconductor laser with optical injection. <i>Physical Review A</i> , 2009, 79, .	1.0	27
32	Wavelength switching dynamics of two-colour semiconductor lasers with optical injection and feedback. <i>Semiconductor Science and Technology</i> , 2012, 27, 094001.	1.0	24
33	A bistable electromagnetic micro-power generator using FR4-based folded arm cantilever. <i>Sensors and Actuators A: Physical</i> , 2015, 227, 39-47.	2.0	24
34	Absence of Evidence \neq Evidence of Absence: Statistical Analysis of Inclusions in Multiferroic Thin Films. <i>Scientific Reports</i> , 2015, 4, 5712.	1.6	23
35	Control of the dipole domain propagation in a GaAs/AlAs superlattice with a high-frequency field. <i>Physical Review B</i> , 2002, 65, .	1.1	20
36	Mechanism of Synchronization in Frequency Dividers. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2009, 56, 190-199.	3.5	20

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37	Bifurcations in a System of Interacting Fronts. <i>Journal of Statistical Physics</i> , 2005, 119, 1069-1138.	0.5	19
38	Bistability in an injection locked two color laser with dual injection. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	19
39	NOISE-INDUCED OSCILLATIONS AND THEIR CONTROL IN SEMICONDUCTOR SUPERLATTICES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2006, 16, 1701-1710.	0.7	18
40	An odd-number limitation of extended time-delayed feedback control in autonomous systems. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2013, 371, 20120463.	1.6	18
41	Multistabilities and symmetry-broken one-color and two-color states in closely coupled single-mode lasers. <i>Physical Review E</i> , 2014, 89, 032919.	0.8	18
42	Transverse spatio-temporal instabilities in the double barrier resonant tunneling diode. <i>Physica B: Condensed Matter</i> , 2002, 314, 113-116.	1.3	17
43	Inverse scattering approach to multiwavelength Fabry-Pérot laser design. <i>Physical Review A</i> , 2006, 74, .	1.0	17
44	Pulse repetition-frequency multiplication in a coupled cavity passively mode-locked semiconductor lasers. <i>Applied Physics B: Lasers and Optics</i> , 2015, 118, 539-548.	1.1	17
45	Optical Synthesis of Terahertz and Millimeter-Wave Frequencies With Discrete Mode Diode Lasers. <i>IEEE Transactions on Microwave Theory and Techniques</i> , 2010, 58, 3083-3087.	2.9	16
46	Gap solitons in spatiotemporal photonic crystals. <i>Physical Review A</i> , 2008, 77, .	1.0	15
47	Interplay between electrical and mechanical domains in a high performance nonlinear energy harvester. <i>Smart Materials and Structures</i> , 2015, 24, 122001.	1.8	15
48	Tripole current oscillations in superlattices. <i>Physica B: Condensed Matter</i> , 2002, 314, 404-408.	1.3	14
49	Influence of combined fundamental potentials in a nonlinear vibration energy harvester. <i>Scientific Reports</i> , 2016, 6, 37292.	1.6	12
50	Multifunctionality in a reservoir computer. <i>Chaos</i> , 2021, 31, 013125.	1.0	12
51	Experimental classification of dynamical regimes in optically injected lasers. <i>Optics Express</i> , 2014, 22, 21701.	1.7	11
52	High-frequency impedance of driven superlattices. <i>Journal of Applied Physics</i> , 2002, 92, 3137-3140.	1.1	10
53	On-off intermittency in an optically injected semiconductor laser. <i>Physical Review E</i> , 2012, 85, 056204.	0.8	10
54	Bistability and All-Optical Memory in Dual-Mode Diode Lasers With Time-Delayed Optical Feedback. <i>IEEE Photonics Journal</i> , 2012, 4, 95-103.	1.0	10

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55	Self-stabilization of chaotic domain oscillations in superlattices by time-delayed feedback control. Semiconductor Science and Technology, 2004, 19, S34-S36.	1.0	8
56	Dynamics of two identical mutually delay-coupled semiconductor lasers in photonic integrated circuits. Applied Optics, 2018, 57, E37.	0.9	8
57	FR4 Based Bistable Electromagnetic Vibration Energy Harvester. Procedia Engineering, 2014, 87, 767-770.	1.2	7
58	Frequency adjustable MEMS vibration energy harvester. Journal of Physics: Conference Series, 2016, 757, 012037.	0.3	7
59	Design and applications of discrete mode Fabry-Perot diode lasers. Photonics and Nanostructures - Fundamentals and Applications, 2010, 8, 218-227.	1.0	6
60	Symmetry kills the square in a multifunctional reservoir computer. Chaos, 2021, 31, 073122.	1.0	6
61	Dynamics of Targeted Ransomware Negotiation. IEEE Access, 2022, 10, 32836-32844.	2.6	6
62	Coupled lateral and vertical electron dynamics in semiconductor superlattices. Physical Review B, 2005, 72, .	1.1	5
63	Dynamics of electronic transport in a semiconductor superlattice with a shunting side layer. Physical Review B, 2009, 79, .	1.1	5
64	Emergence of stable two-colour states in mutually delay-coupled lasers. EPJ Web of Conferences, 2017, 139, 00010.	0.1	4
65	Border-collision bifurcations in a driven time-delay system. Chaos, 2020, 30, 023121.	1.0	4
66	Stochastic resonance in photonic crystal growth. , 2007, 6603, 480.		3
67	Wavelength switching performance of single- and dual-contact two-mode semiconductor lasers with current modulation. Journal of Optics (United Kingdom), 2011, 13, 125501.	1.0	3
68	Defect analysis and alignment quantification of line arrays prepared by directed self-assembly of a block copolymer. , 2014, , .		3
69	Dimensional and defectivity nanometrology of directed self-assembly patterns. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 267-270.	0.8	3
70	Nonlinear dynamics of non-equilibrium holes in p-type modulation-doped GaInNAs/GaAs quantum wells. Nanoscale Research Letters, 2011, 6, 191.	3.1	2
71	Characterization of memory states of the Preisach operator with stochastic inputs. Physica B: Condensed Matter, 2012, 407, 1404-1411.	1.3	2
72	<title>Synchronization of dipole domains in GHz-driven superlattices</title>. , 2002, , .		1

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73	Control of noise-induced oscillations in superlattices by delayed feedback. AIP Conference Proceedings, 2005, , .	0.3	1
74	Control of reflectivity and stop bands in a Bragg stack with a four-layer period. Optics Communications, 2009, 282, 867-871.	1.0	1
75	MEMS based Nonlinear Monostable Electromagnetic Vibrational Energy Harvester for Wider Bandwidth. Journal of Physics: Conference Series, 2015, 660, 012115.	0.3	1
76	Field domains in semiconductor superlattices: Dynamic scenarios of multistable switching. Springer Proceedings in Physics, 2001, , 801-802.	0.1	1
77	<title>From bistability to spatio-temporal chaos in a resonant-tunneling diode</title>. , 2002, 5023, 330.		0
78	Noise-induced patterns in semiconductor nanostructures and time-delayed feedback control. AIP Conference Proceedings, 2005, , .	0.3	0
79	Gap solitons in nonlinear spatiotemporal photonic crystals and gratings. , 2008, , .		0
80	Bistability in a two-colour semiconductor laser with dual injection. , 2011, , .		0
81	Cascading effects in the moving Preisach model. , 2013, , .		0
82	Order and defectivity nanometrology by image processing and analysis of sub-20 nm BCPs features for lithographic applications. Proceedings of SPIE, 2014, , .	0.8	0
83	Mapping self-assembled dots and line arrays by image analysis for quantification of defect density and alignment. Proceedings of SPIE, 2015, , .	0.8	0
84	Bifurcation and frequency analysis of mutually delay-coupled semiconductor lasers in photonic integrated circuits. , 2017, , .		0
85	Frequency and stability analysis of two mutually delay-coupled semiconductor lasers in photonic integrated circuits. , 2017, , .		0
86	Dynamics of two mutually coupled semiconductor lasers in low coupling regions. , 2018, , .		0
87	Noise-induced current oscillations in superlattices: from stationary to moving domains. AIP Conference Proceedings, 2007, , .	0.3	0