William L Kath

List of Publications by Year
in descending order

71 papers	3,226 citations	212478 28 h-index	182931 54 g-index
71 all docs	71 docs citations	71 times ranked	3673 citing authors

#	Article	IF	Citations
1	The E3 ubiquitin ligase adaptor <i>Tango10</i> links the core circadian clock to neuropeptide and behavioral rhythms. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	5
2	Slip Rates and Slip Modes in an Actively Mode-Locked Laser. SIAM Journal on Applied Dynamical Systems, 2020, 19, 1472-1495.	0.7	0
3	TimeTrial: An Interactive Application for Optimizing the Design and Analysis of Transcriptomic Time-Series Data in Circadian Biology Research. Journal of Biological Rhythms, 2020, 35, 439-451.	1.4	17
4	Reply to Laing et al.: Accurate prediction of circadian time across platforms. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 5206-5208.	3.3	6
5	Universal method for robust detection of circadian state from gene expression. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9247-E9256.	3.3	115
6	Control of Stochastic and Induced Switching in Biophysical Networks. Physical Review X, 2015, 5, .	2.8	60
7	Spatial and Functional Heterogeneities Shape Collective Behavior of Tumor-Immune Networks. PLoS Computational Biology, 2015, 11, e1004181.	1.5	35
8	Histone Methyltransferase MMSET/NSD2 Alters EZH2 Binding and Reprograms the Myeloma Epigenome through Global and Focal Changes in H3K36 and H3K27 Methylation. PLoS Genetics, 2014, 10, e1004566.	1.5	178
9	Adaptation to Background Light Enables Contrast Coding at Rod Bipolar Cell Synapses. Neuron, 2014, 81, 388-401.	3.8	69
10	Hybrid Hinge Model for Polarization-Mode Dispersion in Installed Fiber Transmission Systems. Journal of Lightwave Technology, 2014, 32, 1412-1419.	2.7	5
11	Intrinsic bursting of AII amacrine cells underlies oscillations in the rd1 mouse retina. Journal of Neurophysiology, 2014, 112, 1491-1504.	0.9	84
12	Balanced Synaptic Impact via Distance-Dependent Synapse Distribution and Complementary Expression of AMPARs and NMDARs in Hippocampal Dendrites. Neuron, 2013, 80, 1451-1463.	3.8	37
13	Extracting Solitons from Noisy Pulses. SIAM Journal on Applied Mathematics, 2012, 72, 577-593.	0.8	2
14	Synaptic amplification by dendritic spines enhances input cooperativity. Nature, 2012, 491, 599-602.	13.7	244
15	The Mechanisms of Repetitive Spike Generation in an Axonless Retinal Interneuron. Cell Reports, 2012, 1, 155-166.	2.9	35
16	An Iterative Stochastic Method for Simulating Large Deviations and Rare Events. SIAM Journal on Applied Mathematics, 2011, 71, 903-924.	0.8	8
17	A Synaptic Mechanism for Retinal Adaptation to Luminance and Contrast. Journal of Neuroscience, 2011, 31, 11003-11015.	1.7	109
18	Outage Statistics in a Waveplate Hinge Model of Polarization-Mode Dispersion. Journal of Lightwave Technology, 2010, 28, 1958-1968.	2.7	9

#	Article	IF	Citations
19	A state-mutating genetic algorithm to design ion-channel models. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 16829-16834.	3.3	45
20	Synapse Distribution Suggests a Two-Stage Model of Dendritic Integration in CA1 Pyramidal Neurons. Neuron, 2009, 63, 171-177.	3.8	148
21	Anisotropic hinge model for polarization-mode dispersion in installed fibers. Optics Letters, 2008, 33, 1924.	1.7	11
22	Compartmental neural simulations with spatial adaptivity. Journal of Computational Neuroscience, 2008, 25, 465-480.	0.6	9
23	Statistics of Polarization-Mode Dispersion Emulators with Unequal Sections. SIAM Journal on Applied Mathematics, 2008, 69, 552-564.	0.8	2
24	A Method for Determining Most Probable Errors in Nonlinear Lightwave Systems. SIAM Journal on Applied Dynamical Systems, 2008, 7, 868-894.	0.7	9
25	A waveplate hinge model for PMD in installed fibers. , 2008, , .		0
26	Coincidence Detection of Place and Temporal Context in a Network Model of Spiking Hippocampal Neurons. PLoS Computational Biology, 2007, 3, e234.	1.5	29
27	Rhythm Engineering. Science, 2007, 316, 1857-1858.	6.0	10
28	Distance-Dependent Differences in Synapse Number and AMPA Receptor Expression in Hippocampal CA1 Pyramidal Neurons. Neuron, 2006, 50, 431-442.	3.8	171
29	Conditional dendritic spike propagation following distal synaptic activation of hippocampal CA1 pyramidal neurons. Nature Neuroscience, 2005, 8, 1667-1676.	7.1	267
30	Factors mediating powerful voltage attenuation along CA1 pyramidal neuron dendrites. Journal of Physiology, 2005, 568, 69-82.	1.3	187
31	Computational modeling of dendrites. Journal of Neurobiology, 2005, 64, 91-99.	3.7	12
32	10-GHz dispersion-managed soliton fiber-optical parametric oscillator using regenerative mode locking. Optics Letters, 2005, 30, 528.	1.7	19
33	10-GHz dispersion-managed soliton fiber-optical parametric oscillator using regenerative mode-locking: erratum. Optics Letters, 2005, 30, 1743.	1.7	0
34	Coincidence Detection of Place and Temporal Context in a Network Model of Spiking Hippocampal Neurons. PLoS Computational Biology, 2005, preprint, e234.	1.5	0
35	Dendritic arithmetic. Nature Neuroscience, 2004, 7, 567-569.	7.1	47
36	Applications of importance sampling to polarization mode dispersion. Journal of Optical and Fiber Communications Research, 2004, 1, 14-31.	0.5	1

#	Article	IF	Citations
37	Transient evolution of the polarization-dispersion vector's probability distribution. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 992.	0.9	12
38	Dichotomy of Action-Potential Backpropagation in CA1 Pyramidal Neuron Dendrites. Journal of Neurophysiology, 2001, 86, 2998-3010.	0.9	181
39	Radiation loss of dispersion-managed solitons in optical fibers. Physica D: Nonlinear Phenomena, 2001, 149, 80-94.	1.3	21
40	Radiative losses due to pulse interactions in birefringent nonlinear optical fibers. Physical Review E, 2001, 63, 036614.	0.8	18
41	The multiple-scale averaging and dynamics of dispersion-managed optical solitons. Journal of Engineering Mathematics, 1999, 36, 163-184.	0.6	11
42	Dispersion maps with optimized amplifier placement for wavelength-division-multiplexing. , 1999, , .		0
43	Long-term storage of a soliton bit stream using phase-sensitive amplification: effects of solitonâ€"soliton interactions and quantum noise. Optics Communications, 1998, 157, 310-326.	1.0	15
44	Optimal dispersion maps for wavelength-division-multiplexed soliton transmission. Optics Letters, 1998, 23, 597.	1.7	40
45	Analysis of enhanced-power solitons in dispersion-managed optical fibers. Optics Letters, 1997, 22, 985.	1.7	103
46	Controlling soliton perturbations with phase-sensitive amplification. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 1371.	0.9	12
47	Phase-Sensitive Amplification of Pulses in Nonlinear Optical Fibers. The IMA Volumes in Mathematics and Its Applications, 1997, , 75-95.	0.5	0
48	Stabilizing dark solitons by periodic phase-sensitive amplification. Optics Letters, 1996, 21, 465.	1.7	28
49	Stability of Pulses in Nonlinear Optical Fibers Using Phase-Sensitive Amplifiers. SIAM Journal on Applied Mathematics, 1996, 56, 611-626.	0.8	24
50	Soliton evolution and radiation loss for the nonlinear SchrÃ¶dinger equation. Physical Review E, 1995, 51, 1484-1492.	0.8	131
51	Pulse propagation in nonlinear-optical fibers with phase-locked phase-sensitive amplifiers. Optics Letters, 1995, 20, 557.	1.7	3
52	Periodic amplification and conjugation of optical solitons. Optics Letters, 1995, 20, 1365.	1.7	15
53	Long-term storage of a soliton bit stream by use of phase-sensitive amplification. Optics Letters, 1994, 19, 2050.	1.7	54
54	Compensation of the soliton self-frequency shift with phase-sensitive amplifiers. Optics Letters, 1994, 19, 2077.	1.7	23

#	Article	IF	Citations
55	Pulse propagation in nonlinear optical fiber lines that employ phase-sensitive parametric amplifiers. Journal of the Optical Society of America B: Optical Physics, 1994, 11, 2112.	0.9	54
56	Phase-sensitive optical amplifiers. , 1994, , .		0
57	Long-distance pulse propagation in nonlinear optical fibers by using periodically spaced parametric amplifiers. Optics Letters, 1993, 18, 802.	1.7	63
58	Phase Sensitive Amplifiers for Ultra-long Distance Soliton Propagation. Optics and Photonics News, 1993, 4, 11.	0.4	0
59	Dynamics of optical pulses in randomly birefringent fibers. Physica D: Nonlinear Phenomena, 1992, 55, 166-181.	1.3	39
60	Averaging Methods for the Phase Shift of Arbitrarily Perturbed Strongly Nonlinear Oscillators with an Application to Capture. SIAM Journal on Applied Mathematics, 1991, 51, 1150-1167.	0.8	27
61	Hamiltonian dynamics of solitons in optical fibers. Physica D: Nonlinear Phenomena, 1991, 48, 53-64.	1.3	33
62	Bending Losses in Optical Fibers. NATO ASI Series Series B: Physics, 1991, , 309-316.	0.2	1
63	Loss and Birefringence for Arbitrarily Bent Optical Fibres. IMA Journal of Applied Mathematics, 1990, 44, 197-219.	0.8	7
64	Dynamics of coupled solitons in nonlinear optical fibers. Physical Review A, 1990, 42, 563-571.	1.0	144
65	Polarization dynamics for solitons in birefringent optical fibers. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 139, 379-383.	0.9	30
66	Optical Tunnelling: Radiation Losses in Bent Fibre-Optic Waveguides. IMA Journal of Applied Mathematics, 1988, 41, 85-103.	0.8	21
67	Slowly Varying Phase Planes and Boundaryâ€Layer Theory. Studies in Applied Mathematics, 1985, 72, 221-239.	1.1	25
68	Waiting and propagating fronts in nonlinear diffusion. Physica D: Nonlinear Phenomena, 1984, 12, 375-381.	1.3	27
69	Necessary Conditions for Sustained Reentry Roll Resonance. SIAM Journal on Applied Mathematics, 1983, 43, 314-324.	0.8	25
70	Conditions for Sustained Resonance. II. SIAM Journal on Applied Mathematics, 1983, 43, 579-583.	0.8	13
71	Waitingâ€Time Behavior in a Nonlinear Diffusion Equation. Studies in Applied Mathematics, 1982, 67, 79-105.	1.1	41