Koichi Narahara

List of Publications by Year in Descending Order

73 papers	204 citations	7 h-index	9 g-index
78 ext. papers	246 ext. citations	1.5 avg, IF	4.04 L-index

#	Paper	IF	Citations
73	Graphene-based plasmonic metamaterial for terahertz laser transistors. *Nanophotonics*, **2022**,	6.3	3
72	Broadband reduction of phase noise in a spatially extended tunnel-diode oscillator through multiple self-injection locking. *International Journal of Circuit Theory and Applications*, **2022**, 50, 1342-1352	2	0
71	Self-sustained solitary waves in a tunnel diode oscillator lattice and their applications in frequency division. *International Journal of Circuit Theory and Applications*, **2021**, 49, 505-512	2	2
70	Transition Dynamics of Multistable Tunnel-Diode Oscillator Used for Effective Amplitude Modulation. *IEICE Transactions on Electronics*, **2021**, E104.C, 40-43	0.4	
69	Submillimeter-Wave Multiphase Oscillation Using Traveling Pulses in a Resonant-Tunneling Diode-Oscillator Lattice. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2021**, 42, 426-445	2.2	3
68	Generation of Large-Amplitude Pulses through the Pulse Shortening Superposed in Series-Connected Tunnel-Diode Transmission Line. *IEICE Transactions on Electronics*, **2021**, E104.C, 394-397	0.4	
67	Interaction of Self-Sustained Pulses in Tunnel-Diode Oscillator Lattices. *Mathematical Problems in Engineering*, **2021**, 2021, 1-14	1.1	0
66	Self-injection Locking of Rotary Traveling Pulses in Resonant-Tunneling-Diode Transmission-Line Loop. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2020**, 41, 590-604	2.2	
65	Injection Locking of Rotary Dissipative Solitons in Closed Traveling-Wave Field-Effect Transistor. *IEICE Transactions on Electronics*, **2020**, E103.C, 693-696	0.4	
64	Dissipative Discrete Breathers in Series-Connected Tunnel Diode Oscillator Lattice. *Journal of the Physical Society of Japan*, **2020**, 89, 074005	1.5	0
63	Leapfrogging solitary waves in coupled traveling-wave field-effect transistors. *Nonlinear Dynamics*, **2019**, 97, 1359-1369	5	
62	Frequency Divider Using One-Dimensional Tunnel-Diode Oscillator Lattice Systems. *IEICE Transactions on Electronics*, **2019**, E102.C, 845-848	0.4	1
61	Dynamics of traveling pulses developed in a tunnel diode oscillator ring for multiphase oscillation. *Nonlinear Dynamics*, **2019**, 95, 2729-2743	5	8
60	Full-wave analysis of traveling pulses developed in a system of transmission lines with regularly spaced resonant-tunneling diodes. *International Journal of Circuit Theory and Applications*, **2018**, 46, 671-682	2	2
59	Large-amplitude voltage edge oscillating in a transmission line with regularly spaced series-connected resonant-tunneling diodes. *IEICE Electronics Express*, **2018**, 15, 20180678-20180678	0.5	3
58	Characterization of a hard-type oscillator using series-connected tunnel diodes. *IEICE Electronics Express*, **2018**, 15, 20180355-20180355	0.5	4
57	Synchronization of dissipative solitons in a system of closed traveling-wave field-effect transistors. *Nonlinear Dynamics*, **2018**, 94, 711-721	5	3

56	Modulation of Pulse Train Using Leapfrogging Pulses Developed in Unbalanced Coupled Nonlinear Transmission Lines. *Mathematical Problems in Engineering*, **2018**, 2018, 1-7	1.1	2
55	Dynamics of dissipative solitons developed in a closed traveling-wave field-effect transistor. *International Journal of Circuit Theory and Applications*, **2018**, 46, 2000-2010	2	4
54	Mutual synchronization of oscillating pulse edges in point-coupled transmission lines with regularly spaced tunnel diodes. *Communications in Nonlinear Science and Numerical Simulation*, **2017**, 42, 236-246	3.7	4
53	Multiphase Oscillator Using Traveling Pulses Developed in a System of Transmission Lines with Regularly Spaced Resonant-tunneling Diodes. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2017**, 38, 660-678	2.2	6
52	Experimental characterization of mutually synchronized voltage edges in point-coupled tunnel diode transmission lines. *IEICE Electronics Express*, **2017**, 14, 20170054-20170054	0.5	1
51	Numerical characterization of nonlinear oscillatory waves in a composite right- and left-handed traveling-wave field-effect transistor. *International Journal of Circuit Theory and Applications*, **2017**, 45, 774-789	2	1
50	Mutiphase oscillator using dissipatively coupled transmission lines with regularly spaced tunnel diodes. *International Journal of Circuit Theory and Applications*, **2017**, 45, 1115-1128	2	2
49	Harmonic resonance in a composite right-handed and left-handed transmission line periodically loaded with Schottky varactors. *International Journal of Circuit Theory and Applications*, **2016**, 44, 492-503	2	1
48	Numerical Characterization of Dyakonov-Shur Instability in Gated Two-Dimensional Electron Systems. *International Journal of High Speed Electronics and Systems*, **2016**, 25, 1640024	0.5	0
47	Asymmetrical solitary waves in coupled nonlinear transmission lines. *Wave Motion*, **2015**, 58, 13-21	1.8	5
46	Characterization of leapfrogging solitary waves in coupled nonlinear transmission lines. *Nonlinear Dynamics*, **2015**, 81, 1805-1814	5	5
45	Head-on collision of solitary waves in coupled Korteweg□de Vries systems modeling nonlinear transmission lines. *Wave Motion*, **2014**, 51, 935-946	1.8	2
44	Efficiency of three-wave mixing in nonlinear composite right- and left-handed transmission lines. *IEICE Electronics Express*, **2014**, 11, 20140547-20140547	0.5	2
43	Soliton decay in composite right- and left-handed transmission lines periodically loaded with Schottky varactors. *IEICE Electronics Express*, **2014**, 11, 20140881-20140881	0.5	1
42	Characterization of collision-induced generation of pulses in coupled electrical nonlinear transmission lines. *Japanese Journal of Applied Physics*, **2014**, 53, 067301	1.4	2
41	Characterization of edge oscillation in a traveling-wave field-effect transistor. *Physical Review E*, **2013**, 88, 012907	2.4	1
40	External synchronization of oscillating pulse edge on a transmission line with regularly spaced tunnel diodes. *Physical Review E*, **2013**, 87, 012902	2.4	7
39	Reverse Doppler effect in left-handed travelling-wave field-effect transistors. *IEICE Electronics Express*, **2013**, 10, 20120963-20120963	0.5	

38	EXPERIMENTAL OBSERVATION OF LINEAR AND NONLINEAR PULSES IN TRAVELING-WAVE FIELD-EFFECT TRANSISTORS PERIODICALLY LOADED WITH SCHOTTKY VARACTORS. *Progress in Electromagnetics Research B*, **2012**, 37, 387-401	0.7	1
37	EXPERIMENTAL OBSERVATION OF COLLISIONS OF NONLINEAR ENVELOPE PULSES IN LEFT-HANDED TRANSMISSION LINES PERIODICALLY LOADED WITH SCHOTTKY VARACTORS. *Progress in Electromagnetics Research C*, **2012**, 26, 59-70	0.9	1
36	Collision of nonlinear pulses in traveling-wave field effect transistors loaded with Schottky varactors. *Journal of Applied Physics*, **2012**, 111, 044910	2.5	2
35	CHARACTERIZATION OF TWO-DIMENSIONAL LEFT-HANDED TRAVELING-WAVE FIELD-EFFECT TRANSISTORS. *Progress in Electromagnetics Research Letters*, **2012**, 30, 1-12	0.5	
34	COMPENSATION OF WAVE ATTENUATION IN LEFT-HANDED TRAVELING-WAVE FIELD-EFFECT TRANSISTORS. *Progress in Electromagnetics Research Letters*, **2012**, 28, 195-205	0.5	4
33	Development of shock waves in traveling-wave field-effect transistors. *Journal of Applied Physics*, **2012**, 112, 084914	2.5	1
32	Composite Right- and Left-Handed Traveling-Wave Field-Effect Transistors. *Active and Passive Electronic Components*, **2012**, 2012, 1-7	0.3	1
31	Full-Wave Analysis of Traveling-Wave Field-Effect Transistors Using Finite-Difference Time-Domain Method. *International Journal of Antennas and Propagation*, **2012**, 2012, 1-9	1.2	1
30	EXPERIMENTAL OBSERVATION OF PULSE-SHORTENING PHENOMENA IN TRAVELING-WAVE FIELD EFFECT TRANSISTORS. *Progress in Electromagnetics Research Letters*, **2011**, 21, 79-88	0.5	2
29	PROPERTIES OF ENVELOPE PULSES DEVELOPED IN COUPLED NONLINEAR COMPOSITE RIGHT- AND LEFT-HANDED TRANSMISSION LINES. *Progress in Electromagnetics Research M*, **2011**, 20, 155-169	0.6	
28	NONLINEAR TRAVELING-WAVE FIELD-EFFECT TRANSISTORS FOR MANAGING DISPERSION-FREE ENVELOPE PULSES. *Progress in Electromagnetics Research Letters*, **2011**, 23, 29-38	0.5	
27	COLLISION OF NONLINEAR ENVELOPE PULSES DEVELOPED IN COMPOSITE RIGHT- AND LEFT-HANDED TRANSMISSION LINES PERIODICALLY LOADED WITH SCHOTTKY VARACTORS. *Progress in Electromagnetics Research C*, **2011**, 21, 1-12	0.9	2
26	Characterization of Short-Pulse Generation Using Traveling-Wave Field-Effect Transistors. *Japanese Journal of Applied Physics*, **2011**, 50, 014104	1.4	2
25	Characterization of Short-Pulse Generation Using Traveling-Wave Field-Effect Transistors. *Japanese Journal of Applied Physics*, **2011**, 50, 014104	1.4	1
24	COUPLED NONLINEAR TRANSMISSION LINES FOR DOUBLING REPETITION RATE OF INCIDENT PULSE STREAMS. *Progress in Electromagnetics Research Letters*, **2010**, 16, 69-78	0.5	5
23	INTERACTION OF NONLINEAR PULSES DEVELOPED IN COUPLED TRANSMISSION LINES REGULARLY SPACED SCHOTTKY VARACTORS. *Progress in Electromagnetics Research Letters*, **2010**, 17, 85-93	0.5	5
22	Generation of short electrical pulses using nonlinear traveling-wave field effect transistors. *IEICE Electronics Express*, **2010**, 7, 1474-1479	0.5	1
21	Dynamics of oscillating pulse edges in two-dimensional switch lines. *IEICE Electronics Express*, **2010**, 7, 314-319	0.5	1

20	Experimental characterization of left-handed transmission lines with regularly spaced Schottky varactors. *IEICE Electronics Express*, **2010**, 7, 608-614	0.5	13
19	Nonlinear traveling-wave field effect transistors for amplification of short electrical pulses. *IEICE Electronics Express*, **2010**, 7, 1188-1194	0.5	16
18	Characterization of Oscillating Pulse Edges in Switch Lines for Development of Widely Tunable Voltage-Controlled Oscillators. *Japanese Journal of Applied Physics*, **2009**, 48, 084502	1.4	1
17	Experimental Observation of Oscillating Wave Propagation on Switch Lines for Generation of Continuous Electromagnetic Waves **2009**, 2009, 1-4		
16	Characterization of Nonlinear Transmission Lines for Short Pulse Amplification. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2009**, 31, 411	2.2	2
15	Amplification of short pulses in transmission lines periodically loaded with Schottky varactors. *IEICE Electronics Express*, **2009**, 6, 1199-1204	0.5	2
14	Short envelope pulse propagation in composite right- and left-handed transmission lines with regularly spaced Schottky varactors. *IEICE Electronics Express*, **2009**, 6, 1576-1581	0.5	12
13	Characterization of one- and two-dimensional switch lines for controlling traveling pulses. *IEICE Electronics Express*, **2009**, 6, 769-773	0.5	1
12	Characterization of Left-Handed Traveling-Wave Transistors. *IEICE Transactions on Electronics*, **2009** , E92-C, 1396-1400	0.4	2
11	Nonlinear Plasma Waves in Coupled Two-Dimensional Electron Systems. *Japanese Journal of Applied Physics*, **2008**, 47, 8756-8760	1.4	2
10	Full-Wave Analysis of Quasi-Steady Propagation along Transmission Lines Periodically Loaded with Resonant Tunneling Diodes. *Japanese Journal of Applied Physics*, **2008**, 47, 1126-1129	1.4	7
9	Characterization of plasma waves in gated two-dimensional electron systems. *Journal of Applied Physics*, **2008**, 103, 023301	2.5	3
8	Experimental characterization of short-pulse generation using switch lines. *IEICE Electronics Express* , **2008**, 5, 973-977	0.5	9
7	CHARACTERIZATION OF VOLTAGE-CONTROLLED OSCILLATOR USING RTD TRANSMISSION LINE. *International Journal of High Speed Electronics and Systems*, **2007**, 17, 577-584	0.5	3
6	Electromagnetic continuous-wave generation using switch lines. *Journal of Applied Physics*, **2006**, 100, 064908	2.5	10
5	Compression of Electrical Pulses Using Traveling-Wave Field Effect Transistors. *Japanese Journal of Applied Physics*, **1999**, 38, 4688-4695	1.4	2
4	A Traveling-wave Time-division Demultiplexer. *Japanese Journal of Applied Physics*, **1999**, 38, 4021-4026	1.4	2
3	Characterization of Wave Propagation on Traveling-Wave Field Effect Transistors. *Japanese Journal of Applied Physics*, **1998**, 37, 6328-6339	1.4	7

2	Traversable wormhole in the expanding universe. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, **1994**, 336, 319-323	4.2	4
1	Interaction of rotary pulses in a closed lattice of tunnel diode oscillators. *Nonlinear Dynamics*,1	5	