

# Koichi Narahara

## List of Publications by Year in descending order

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times ranked

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| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Graphene-based plasmonic metamaterial for terahertz laser transistors. <i>Nanophotonics</i> , 2022, 11, 1677-1696.   | 6.0 | 15        |
| 2  | Broadband reduction of phase noise in a spatially extended tunnel-diode oscillator through multiple self-injection locking. <i>International Journal of Circuit Theory and Applications</i> , 2022, 50, 1342-1352.       | 2.0 | 1         |
| 3  | Self-sustained solitary waves in a tunnel diode oscillator lattice and their applications in frequency division. <i>International Journal of Circuit Theory and Applications</i> , 2021, 49, 505-512.                    | 2.0 | 4         |
| 4  | Transition Dynamics of Multistable Tunnel-Diode Oscillator Used for Effective Amplitude Modulation. <i>IEICE Transactions on Electronics</i> , 2021, E104.C, 40-43.  | 0.6 | 0         |
| 5  | Submillimeter-Wave Multiphase Oscillation Using Traveling Pulses in a Resonant-Tunneling Diode-Oscillator Lattice. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2021, 42, 426-445.                      | 2.2 | 8         |
| 6  | Generation of Large-Amplitude Pulses through the Pulse Shortening Superposed in Series-Connected Tunnel-Diode Transmission Line. <i>IEICE Transactions on Electronics</i> , 2021, E104.C, 394-397.                       | 0.6 | 0         |
| 7  | Interaction of Self-Sustained Pulses in Tunnel-Diode Oscillator Lattices. <i>Mathematical Problems in Engineering</i> , 2021, 2021, 1-14.  | 1.1 | 1         |
| 8  | Dissipative Discrete Breathers in Series-Connected Tunnel Diode Oscillator Lattice. <i>Journal of the Physical Society of Japan</i> , 2020, 89, 074005.  | 1.6 | 4         |
| 9  | Self-injection Locking of Rotary Traveling Pulses in Resonant-Tunneling-Diode Transmission-Line Loop. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2020, 41, 590-604.                                   | 2.2 | 0         |
| 10 | Injection Locking of Rotary Dissipative Solitons in Closed Traveling-Wave Field-Effect Transistor. <i>IEICE Transactions on Electronics</i> , 2020, E103.C, 693-696.   | 0.6 | 0         |
| 11 | Leapfrogging solitary waves in coupled traveling-wave field-effect transistors. <i>Nonlinear Dynamics</i> , 2019, 97, 1359-1369.   | 5.2 | 0         |
| 12 | Dynamics of traveling pulses developed in a tunnel diode oscillator ring for multiphase oscillation. <i>Nonlinear Dynamics</i> , 2019, 95, 2729-2743.  | 5.2 | 11        |
| 13 | Frequency Divider Using One-Dimensional Tunnel-Diode Oscillator Lattice Systems. <i>IEICE Transactions on Electronics</i> , 2019, E102.C, 845-848.   | 0.6 | 2         |
| 14 | Full-wave analysis of traveling pulses developed in a system of transmission lines with regularly spaced resonant tunneling diodes. <i>International Journal of Circuit Theory and Applications</i> , 2018, 46, 671-682. | 2.0 | 4         |
| 15 | Characterization of a hard-type oscillator using series-connected tunnel diodes. <i>IEICE Electronics Express</i> , 2018, 15, 20180355-20180355.   | 0.8 | 6         |
| 16 | Synchronization of dissipative solitons in a system of closed traveling-wave field-effect transistors. <i>Nonlinear Dynamics</i> , 2018, 94, 711-721.  | 5.2 | 3         |
| 17 | Modulation of Pulse Train Using Leapfrogging Pulses Developed in Unbalanced Coupled Nonlinear Transmission Lines. <i>Mathematical Problems in Engineering</i> , 2018, 2018, 1-7.   | 1.1 | 2         |
| 18 | Dynamics of dissipative solitons developed in a closed traveling-wave field-effect transistor. <i>International Journal of Circuit Theory and Applications</i> , 2018, 46, 2000-2010.                                    | 2.0 | 4         |

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|----|--|-----|-----------|
| 19 | Large-amplitude voltage edge oscillating in a transmission line with regularly spaced series-connected resonant-tunneling diodes. <i>IEICE Electronics Express</i> , 2018, 15, 20180678-20180678.                            | 0.8 | 3         |
| 20 | Mutual synchronization of oscillating pulse edges in point-coupled transmission lines with regularly spaced tunnel diodes. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2017, 42, 236-246.          | 3.3 | 4         |
| 21 | Multiphase Oscillator Using Traveling Pulses Developed in a System of Transmission Lines with Regularly Spaced Resonant-tunneling Diodes. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2017, 38, 660-678.   | 2.2 | 6         |
| 22 | Resonances in Left-Handed Waves Developed in Nonlinear Electrical Lattices. , 2017, , .  |     | 0         |
| 23 | Numerical characterization of nonlinear oscillatory waves in a composite right- and left-handed traveling-wave field-effect transistor. <i>International Journal of Circuit Theory and Applications</i> , 2017, 45, 774-789. | 2.0 | 2         |
| 24 | Multiphase oscillator using dissipatively coupled transmission lines with regularly spaced tunnel diodes. <i>International Journal of Circuit Theory and Applications</i> , 2017, 45, 1115-1128.                             | 2.0 | 5         |
| 25 | Experimental characterization of mutually synchronized voltage edges in point-coupled tunnel diode transmission lines. <i>IEICE Electronics Express</i> , 2017, 14, 20170054-20170054.                                       | 0.8 | 1         |
| 26 | Numerical Characterization of Dyakonov-Shur Instability in Gated Two-Dimensional Electron Systems. , 2017, , .   |     | 0         |
| 27 | Numerical Characterization of Dyakonov-Shur Instability in Gated Two-Dimensional Electron Systems. <i>International Journal of High Speed Electronics and Systems</i> , 2016, 25, 1640024.                                   | 0.7 | 2         |
| 28 | Harmonic resonance in a composite right-handed and left-handed transmission line periodically loaded with Schottky varactors. <i>International Journal of Circuit Theory and Applications</i> , 2016, 44, 492-503.           | 2.0 | 2         |
| 29 | Characterization of leapfrogging solitary waves in coupled nonlinear transmission lines. <i>Nonlinear Dynamics</i> , 2015, 81, 1805-1814.  | 5.2 | 5         |
| 30 | Asymmetrical solitary waves in coupled nonlinear transmission lines. <i>Wave Motion</i> , 2015, 58, 13-21.   | 2.0 | 6         |
| 31 | Characterization of collision-induced generation of pulses in coupled electrical nonlinear transmission lines. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 067301.  | 1.5 | 3         |
| 32 | Head-on collision of solitary waves in coupled Korteweg-de Vries systems modeling nonlinear transmission lines. <i>Wave Motion</i> , 2014, 51, 935-946.  | 2.0 | 3         |
| 33 | Efficiency of three-wave mixing in nonlinear composite right- and left-handed transmission lines. <i>IEICE Electronics Express</i> , 2014, 11, 20140547-20140547.  | 0.8 | 3         |
| 34 | Soliton decay in composite right- and left-handed transmission lines periodically loaded with Schottky varactors. <i>IEICE Electronics Express</i> , 2014, 11, 20140881-20140881.  | 0.8 | 2         |
| 35 | Characterization of edge oscillation in a traveling-wave field-effect transistor. <i>Physical Review E</i> , 2013, 88, 012907.   | 2.1 | 2         |
| 36 | External synchronization of oscillating pulse edge on a transmission line with regularly spaced tunnel diodes. <i>Physical Review E</i> , 2013, 87, 012902.  | 2.1 | 8         |

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|----|---|-----|-----------|
| 37 | Reverse Doppler effect in left-handed travelling-wave field-effect transistors. IEICE Electronics Express, 2013, 10, 20120963-20120963.   | 0.8 | 0         |
| 38 | Development of shock waves in traveling-wave field-effect transistors. Journal of Applied Physics, 2012, 112, 084914.   | 2.5 | 3         |
| 39 | Composite Right- and Left-Handed Traveling-Wave Field-Effect Transistors. Active and Passive Electronic Components, 2012, 2012, 1-7.  | 0.3 | 1         |
| 40 | 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 | 2         |
| 41 | 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.   | 1.0 | 1         |
| 42 | 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 | 2         |
| 43 | Collision of nonlinear pulses in traveling-wave field effect transistors loaded with Schottky varactors. Journal of Applied Physics, 2012, 111, 044910.   | 2.5 | 3         |
| 44 | CHARACTERIZATION OF TWO-DIMENSIONAL LEFT-HANDED TRAVELING-WAVE FIELD-EFFECT TRANSISTORS. Progress in Electromagnetics Research Letters, 2012, 30, 1-12.   | 0.7 | 0         |
| 45 | COMPENSATION OF WAVE ATTENUATION IN LEFT-HANDED TRAVELING-WAVE FIELD-EFFECT TRANSISTORS. Progress in Electromagnetics Research Letters, 2012, 28, 195-205.  | 0.7 | 4         |
| 46 | EXPERIMENTAL OBSERVATION OF PULSE-SHORTENING PHENOMENA IN TRAVELING-WAVE FIELD EFFECT TRANSISTORS. Progress in Electromagnetics Research Letters, 2011, 21, 79-88.  | 0.7 | 3         |
| 47 | PROPERTIES OF ENVELOPE PULSES DEVELOPED IN COUPLED NONLINEAR COMPOSITE RIGHT- AND LEFT-HANDED TRANSMISSION LINES. Progress in Electromagnetics Research M, 2011, 20, 155-169.                                 | 0.9 | 0         |
| 48 | NONLINEAR TRAVELING-WAVE FIELD-EFFECT TRANSISTORS FOR MANAGING DISPERSION-FREE ENVELOPE PULSES. Progress in Electromagnetics Research Letters, 2011, 23, 29-38.   | 0.7 | 1         |
| 49 | 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 | 5         |
| 50 | Characterization of Short-Pulse Generation Using Traveling-Wave Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 014104.  | 1.5 | 4         |
| 51 | Experimental characterization of nonlinear transmission lines for amplification of short pulses. , 2011, , .  |     | 0         |
| 52 | Characterization of Short-Pulse Generation Using Traveling-Wave Field-Effect Transistors. Japanese Journal of Applied Physics, 2011, 50, 014104.  | 1.5 | 1         |
| 53 | Generation of short electrical pulses using nonlinear traveling-wave field effect transistors. IEICE Electronics Express, 2010, 7, 1474-1479.   | 0.8 | 2         |
| 54 | Dynamics of oscillating pulse edges in two-dimensional switch lines. IEICE Electronics Express, 2010, 7, 314-319.   | 0.8 | 1         |

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|----|---|-----|-----------|
| 55 | Experimental characterization of left-handed transmission lines with regularly spaced Schottky varactors. IEICE Electronics Express, 2010, 7, 608-614.                                | 0.8 | 14        |
| 56 | Nonlinear traveling-wave field effect transistors for amplification of short electrical pulses. IEICE Electronics Express, 2010, 7, 1188-1194.  | 0.8 | 18        |
| 57 | COUPLED NONLINEAR TRANSMISSION LINES FOR DOUBLING REPETITION RATE OF INCIDENT PULSE STREAMS. Progress in Electromagnetics Research Letters, 2010, 16, 69-78.                          | 0.7 | 11        |
| 58 | INTERACTION OF NONLINEAR PULSES DEVELOPED IN COUPLED TRANSMISSION LINES REGULARLY SPACED SCHOTTKY VARACTORS. Progress in Electromagnetics Research Letters, 2010, 17, 85-93.          | 0.7 | 6         |
| 59 | Characterization of Oscillating Pulse Edges in Switch Lines for Development of Widely Tunable Voltage-Controlled Oscillators. Japanese Journal of Applied Physics, 2009, 48, 084502.  | 1.5 | 3         |
| 60 | Experimental Observation of Oscillating Wave Propagation on Switch Lines for Generation of Continuous Electromagnetic Waves. Research Letters in Electronics, 2009, 2009, 1-4.        | 0.6 | 0         |
| 61 | Characterization of Nonlinear Transmission Lines for Short Pulse Amplification. Journal of Infrared, Millimeter, and Terahertz Waves, 2009, 31, 411.                                  | 2.2 | 3         |
| 62 | Amplification of short pulses in transmission lines periodically loaded with Schottky varactors. IEICE Electronics Express, 2009, 6, 1199-1204.                                       | 0.8 | 3         |
| 63 | Short envelope pulse propagation in composite right- and left-handed transmission lines with regularly spaced Schottky varactors. IEICE Electronics Express, 2009, 6, 1576-1581.      | 0.8 | 14        |
| 64 | Characterization of one- and two-dimensional switch lines for controlling traveling pulses. IEICE Electronics Express, 2009, 6, 769-773.  | 0.8 | 1         |
| 65 | Characterization of Left-Handed Traveling-Wave Transistors. IEICE Transactions on Electronics, 2009, E92-C, 1396-1400.  | 0.6 | 2         |
| 66 | Nonlinear Plasma Waves in Coupled Two-Dimensional Electron Systems. Japanese Journal of Applied Physics, 2008, 47, 8756-8760.   | 1.5 | 3         |
| 67 | 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. | 1.5 | 9         |
| 68 | Characterization of plasma waves in gated two-dimensional electron systems. Journal of Applied Physics, 2008, 103, 023301.  | 2.5 | 4         |
| 69 | Experimental characterization of short-pulse generation using switch lines. IEICE Electronics Express, 2008, 5, 973-977.  | 0.8 | 12        |
| 70 | CHARACTERIZATION OF VOLTAGE-CONTROLLED OSCILLATOR USING RTD TRANSMISSION LINE. International Journal of High Speed Electronics and Systems, 2007, 17, 577-584.                        | 0.7 | 3         |
| 71 | Electromagnetic continuous-wave generation using switch lines. Journal of Applied Physics, 2006, 100, 064908.   | 2.5 | 11        |
| 72 | Traveling-Wave Retimer with Coupled Nonlinear Transmission Line. Japanese Journal of Applied Physics, 2003, 42, 1192-1199.  | 1.5 | 1         |

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|----|--|-----|-----------|
| 73 | Compression of Electrical Pulses Using Traveling-Wave Field Effect Transistors. Japanese Journal of Applied Physics, 1999, 38, 4688-4695.                          | 1.5 | 2         |
| 74 | A Traveling-wave Time-division Demultiplexer. Japanese Journal of Applied Physics, 1999, 38, 4021-4026.  | 1.5 | 2         |
| 75 | Characterization of Wave Propagation on Traveling-Wave Field Effect Transistors. Japanese Journal of Applied Physics, 1998, 37, 6328-6339.                         | 1.5 | 11        |
| 76 | Traversable wormhole in the expanding universe. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 336, 319-323.              | 4.1 | 4         |
| 77 | Interaction of rotary pulses in a closed lattice of tunnel diode oscillators. Nonlinear Dynamics, 0, , 1.  | 5.2 | 0         |
| 78 | A frequency divider using interacting self-sustained pulses in a tunnel diode oscillator lattice. International Journal of Circuit Theory and Applications, 0, , . | 2.0 | 0         |