Nithyanandan Kanagaraj

List of Publications by Year
in descending order

137	3,009	201674	189892
papers	citations	27 h-index	50 g-index

138	138	138	1200
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Phase Noise of Optical Pulse Trains Generated by Talbot Effect in Frequency Shifting Loops. Journal of Lightwave Technology, 2021, 39, 2336-2347.	4.6	5
2	Modulational instability in a non-Kerr photonic Lieb lattice with metamaterials. Physical Review A, 2021, 103, .	2.5	2
3	Active Optical Fibers and Components for Fiber Lasers Emitting in the 2-Î¼m Spectral Range. Materials, 2020, 13, 5177.	2.9	27
4	A theoretical study on the supercontinuum generation in a novel suspended liquid core photonic crystal fiber. Applied Physics B: Lasers and Optics, 2020, 126, 1.	2.2	19
5	Buildup of incoherent dissipative solitons in ultrafast fiber lasers. Physical Review Research, 2020, 2, .	3.6	24
6	Phase dynamics of inhomogeneous Manakov vector solitons. Physical Review E, 2019, 100, 012213.	2.1	15
7	Influence of modified saturable nonlinearity on modulational instability in metamaterial with presence of self-steepening. AIP Conference Proceedings, 2019, , .	0.4	0
8	Chirped self-similar solitary waves for the generalized nonlinear SchrÃ¶dinger equation with distributed two-power-law nonlinearities. Physical Review E, 2019, 100, 042208.	2.1	8
9	All-Fiber Mode-Locked Thulium Doped Fiber Laser using a Novel Femtosecond Laser Inscribed 45Â° Tilted Fiber Grating. , 2019, , .		0
10	All fiber mode-locked thulium-doped fiber laser using a novel femtosecond-laser-inscribed 45Â°-plane-by-plane-tilted fiber grating. Laser Physics Letters, 2019, 16, 095104.	1.4	14
11	Enhanced Pump Absorption Efficiency in Coiled and Twisted Double-Clad Fibers for Fiber Lasers. , 2019, , .		2
12	Optical Frequency Combs Generated by Acousto-Optic Frequency-Shifting Loops. IEEE Photonics Technology Letters, 2019, 31, 1878-1881.	2.5	17
13	Dynamics of distorted and undistorted soliton molecules in a mode-locked fiber laser. Physical Review A, 2019, 99, .	2.5	35
14	Ultra-broadband continuum generation in silica based defective core photonic crystal fiber. Optik, 2019, 191, 121-131.	2.9	7
15	Energy diagram and stability range of families of soliton molecules in fibers. Optical and Quantum Electronics, 2019, 51, 1.	3.3	1
16	Optical soliton molecular complexes in a passively mode-locked fibre laser. Nature Communications, 2019, 10, 830.	12.8	192
17	Instabilities and solitons in systems with spatio-temporal dispersions and non paraxial approximations. Optik, 2019, 182, 1120-1130.	2.9	5
18	Buildup of Noise-Like Pulses in Ultrafast Fiber Lasers. , 2019, , .		0

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19	Analyzing the effect of higher order nonlinearity on dispersion relation and optical multistability generation in oppositely directed coupler. Optik, 2019, 181, 956-963.	2.9	2
20	Rational and semi-rational solutions of the Kadomtsevâ€“Petviashvili-based system. Nonlinear Dynamics, 2019, 95, 1133-1146.	5.2	6
21	Self-similar pulse compression by defective core photonic crystal fiber with cubicâ€“quintic nonlinearities. Optik, 2019, 178, 591-601.	2.9	8
22	Optimization of acousto-optic optical frequency combs. Optics Express, 2019, 27, 14842.	3.4	25
23	A theoretical study on the continuum generation in a defective core photonic crystal fiber. , 2019, , .		0
24	Dispersion relations and band gaps in wave number or frequency in the linear and nonlinear regimes for a coupled system with no paraxial approximation. AIP Conference Proceedings, 2018, , .	0.4	0
25	Black and gray soliton interactions and cascade compression in the variable coefficient nonlinear SchrÃ¶dinger equation. Optik, 2018, 159, 176-188.	2.9	9
26	Spotlighting phase separation in Rashba spin-orbit coupled Boseâ€“Einstein condensates in two dimensions. Journal of Physics Communications, 2018, 2, 025008.	1.2	8
27	Impact of higher order dispersion and nonlinearities on modulational instability in a dual-core optical fiber. European Physical Journal D, 2018, 72, 1.	1.3	15
28	Multistability and switching in oppositely-directed saturated coupler. Optics Communications, 2018, 416, 145-151.	2.1	8
29	Influence of spatial delay on the modulational instability in a composite system with a controllable nonlinearity. Physical Review E, 2018, 97, 062208.	2.1	6
30	Modulation instability in two-dimensional waveguide arrays with alternating signs of refractive index. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 2057.	2.1	3
31	Observation of Optical Multistability in directional coupler with negative index material channel. , 2018, , .		0
32	Vibrations and oscillations of tri-soliton molecules in a mode-locked fiber laser. , 2018, , .		0
33	Dark spatial solitary waves in a cubic-quintic-septimal nonlinear medium. Physical Review A, 2017, 95, .	2.5	19
34	Dynamics of vector dark solitons propagation and tunneling effect in the variable coefficient coupled nonlinear SchrÃ¶dinger equation. Chaos, 2017, 27, 023113.	2.5	13
35	W-shaped, bright and kink solitons in the quadratic-cubic nonlinear SchrÃ¶dinger equation with time and space modulated nonlinearities and potentials. Journal of Modern Optics, 2017, 64, 1368-1376.	1.3	18
36	Ultrashort dark solitons interactions and nonlinear tunneling in the modified nonlinear SchrÃ¶dinger equation with variable coefficient. Optical Fiber Technology, 2017, 37, 11-20.	2.7	19

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37	Solitons in the nonlinear SchrÃ¶dinger equation with two power-law nonlinear terms modulated in time and space. Physical Review E, 2017, 95, 062208.	2.1	15
38	Real-Time Observation of Internal Motion within Ultrafast Dissipative Optical Soliton Molecules. Physical Review Letters, 2017, 118, 243901.	7.8	341
39	Vector dynamics of incoherent dissipative optical solitons. Optica, 2017, 4, 1239.	9.3	82
40	Spatial modulation instability of coupled surface plasmon polaritons in a dielectricâ€“metalâ€“dielectric structure. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 198.	2.1	10
41	A theoretical study on modulational instability in relaxing saturable nonlinear optical media. , 2017, , 97-132.		0
42	Temperature tunable supercontinuum spectrum in visible region using water-core PCF. , 2016, , .		0
43	Modulation instability in quasi-two-dimensional spinâ€“orbit coupled Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 245301.	1.5	22
44	Self-similar localized pulses for the nonlinear SchrÃ¶dinger equation with distributed cubic-quintic nonlinearity. Physical Review A, 2016, 94, .	2.5	20
45	Disorder-induced vortex lattice melting in a Bose-Einstein condensate. Physical Review A, 2016, 93, .	2.5	10
46	Rogue wave triggered at a critical frequency of a nonlinear resonant medium. Physical Review E, 2016, 93, 062201.	2.1	38
47	Influence of birefringence in the instability spectra of oppositely directed coupler with negative index material channel. Physical Review A, 2016, 93, .	2.5	15
48	Chirped solitary pulses for a nonic nonlinear SchrÃ¶dinger equation on a continuous-wave background. Physical Review A, 2016, 93, .	2.5	61
49	Optical Bistability and Switching in Oppositely Directed Coupler. IEEE Journal of Quantum Electronics, 2016, 52, 1-8.	1.9	6
50	A theoretical study on threshold conditions of modulation instability in oppositely directed couplers. Journal of Optics (United Kingdom), 2016, 18, 125502.	2.2	9
51	Vortex lattice disorder in pseudorandom potential in rotating Bose-Einstein condensate. AIP Conference Proceedings, 2016, , .	0.4	0
52	Modulation instability in a triangular three-core coupler with a negative-index material channel. Journal of Optics (United Kingdom), 2016, 18, 035102.	2.2	16
53	Co-propagation of two optical fields in a semiconductor doped dispersion decreasing fiber and modulational instability induced by cross-phase modulation. Laser Physics, 2016, 26, 015401.	1.2	6
54	Effect of Temperature on Supercontinuum Generation in Water-Core Photonic Crystal Fiber. IEEE Photonics Technology Letters, 2016, 28, 1209-1212.	2.5	7

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55	A Novel Power Play in the Supercontinuum Generation Induced by Modulational Instability in Saturable Nonlinear Media. , 2016, , .		0
56	Modulational instability in binary spin-orbit-coupled Bose-Einstein condensates. Physical Review A, 2015, 92, .	2.5	46
57	Dynamical stability of dipolar Bose-Einstein condensates with temporal modulation of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>s</mml:mi></mml:math>-wave scattering length. Physical Review E, 2015, 92, 032905.	2.1	13
58	An all-optical NOT logic operation based on a chloroform filled geometrically asymmetric triangular triple-core PCF. , 2015, , .		1
59	Effect of impurities on the vortex lattice in Bose-Einstein condensates on optical lattice. AIP Conference Proceedings, 2015, , .	0.4	0
60	Influence of the functional form of nonlinearity in the Modulational Instability spectra of relaxing saturable nonlinear system. Journal of Physics: Conference Series, 2015, 605, 012032.	0.4	0
61	A projection operator approach for computing the dynamics of AS2S3chalcogenide birefringent photonic crystal fiber coupler. Journal of Optics (United Kingdom), 2015, 17, 025504.	2.2	1
62	The Darboux transformation of the Kunduâ€“Eckhaus equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150236.	2.1	82
63	Soliton fission and supercontinuum generation in photonic crystal fibre for optical coherence tomography application. Pramana - Journal of Physics, 2015, 85, 993-1007.	1.8	7
64	A Novel Behavior of Pump Power in the Instability Induced Supercontinuum Generation of Saturable Nonlinear Media. Journal of Physics: Conference Series, 2015, 605, 012031.	0.4	0
65	Impact of structural asymmetry on the efficiency of triple-core photonic crystal fiber for all-optical logic operation. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1920.	2.1	11
66	Theoretical investigation of modulation instability in a three-core coupler with negative index material channel. Physics Letters, Section A: General, Atomic and Solid State Physics, 2015, 379, 223-229.	2.1	24
67	Power play in the supercontinuum spectra of saturable nonlinear media. Laser Physics, 2014, 24, 045405.	1.2	9
68	A Study on Super Continuum Generation in Exponential type Saturable Nonlinearity. , 2014, , .		0
69	Influence of self-steepening and intrapulse Raman scattering on modulation instability in oppositely directed coupler. Physical Review E, 2014, 90, 042910.	2.1	32
70	Modulational instability of nematic phase. Pramana - Journal of Physics, 2014, 82, 307-312.	1.8	0
71	Impact of higher-order dispersion in the modulational instability spectrum of a relaxing coupled saturable media. Pramana - Journal of Physics, 2014, 82, 339-345.	1.8	9
72	Few-cycle optical rogue waves: Complex modified Kortewegâ€“de Vries equation. Physical Review E, 2014, 89, 062917.	2.1	115

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73	Dynamical instability of a Bose-Einstein condensate with higher-order interactions in an optical potential through a variational approach. Physical Review E, 2014, 89, 052917.	2.1	18
74	Pinning of hidden vortices in Bose-Einstein condensates. Physical Review A, 2014, 89, .	2.5	25
75	A Theoretical Investigation on Modulational Instability in non-instantaneous Saturable Nonlinear Media. , 2014, , .		0
76	A Novel Power Play in the Supercontinuum Generation Induced by Modulational Instability in Saturable Nonlinear Media. , 2014, , .		0
77	A theoretical investigation of soliton induced supercontinuum generation in liquid core photonic crystal fiber and dual core optical fiber. European Physical Journal: Special Topics, 2013, 222, 625-640.	2.6	1
78	Realization of all-optical logic gates through three core photonic crystal fiber. Optics Communications, 2013, 296, 124-131.	2.1	30
79	Impact of material absorption on supercontinuum generation in liquid core photonic crystal fiber. , 2013, , .		0
80	All optical AND and NAND logic gates based on a triple core photonic crystal fiber. , 2013, , .		0
81	A colloquium on the influence of versatile class of saturable nonlinear responses in the instability induced supercontinuum generation. Optical Fiber Technology, 2013, 19, 348-358.	2.7	25
82	Higher-order nonlinear SchrÃ¶dinger equation with derivative non-Kerr nonlinear terms: A model for sub-10-fs-pulse propagation. Physical Review A, 2013, 88, .	2.5	72
83	Observation of two state behavior in the instability spectra of saturable nonlinear media. European Physical Journal: Special Topics, 2013, 222, 821-825.	2.6	6
84	Designing a class of asymmetric twin core photonic crystal fibers for switching and multi-frequency generation. Optical Fiber Technology, 2013, 19, 556-564.	2.7	12
85	Circularly polarized few-cycle optical rogue waves: Rotating reduced Maxwell-Bloch equations. Physical Review E, 2013, 88, 062925.	2.1	21
86	Dynamics of soliton matter waves in trapped BEC with time-dependent two and three-body interaction. , 2013, , .		0
87	Investigation of all optical pulse steering through a highly nonlinear chalcogenide twin core photonic crystal fiber. , 2013, , .		2
88	Interplay between relaxation of nonlinear response and coupling coefficient dispersion in the instability spectra of dual core optical fiber. Optics Communications, 2013, 303, 46-55.	2.1	19
89	Modulational instability in a twin-core fiber with the effect of saturable nonlinear response and coupling coefficient dispersion. Physical Review A, 2013, 87, .	2.5	48
90	Supercontinuum generation in the novel semiconductor doped dispersion decreasing fiber. , 2013, , .		0

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91	Theoretical investigation of modulational instability in semiconductor doped dispersion decreasing fiber and its cutting edge over the existing fiber systems. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 178.	2.1	27
92	Observation of two state behavior in the Instability induced Supercontinuum Generation of exponential saturable nonlinearity. , 2013, , .		0
93	Modulational instability at the proximity of zero dispersion wavelength in the relaxing saturable nonlinear system. Journal of the Optical Society of America B: Optical Physics, 2012, 29, 2803.	2.1	26
94	Interplay between saturation and relaxation of nonlinear response in the modulational instability of various nonlinear media. , 2012, , .		1
95	Investigation of optical pulse coupling through the nitrobenzene filled photonic crystal fiber coupler — A projection operator approach. , 2012, , .		0
96	Modulational instability with higher-order dispersion and walk-off in Kerr media with cross-phase modulation. Physical Review A, 2012, 86, .	2.5	41
97	Modulational instability in metamaterials with saturable nonlinearity and higher-order dispersion. Journal of Modern Optics, 2012, 59, 972-979.	1.3	16
98	Impact of dispersion and non-Kerr nonlinearity on the modulational instability of the higher-order nonlinear SchrÃ¶dinger equation. Physical Review A, 2012, 85, .	2.5	63
99	A new era of exotic electromagnetism. Resonance, 2012, 17, 163-176.	0.3	1
100	All-Optical Steering of Light Through Nonlinear Twin-Core Photonic Crystal Fiber Coupler at 850 nm. Journal of Lightwave Technology, 2012, 30, 2110-2116.	4.6	13
101	Higher order dispersion effects in the noninstantaneous nonlinear SchrÃ¶dinger equation. Journal of Modern Optics, 2011, 58, 924-931.	1.3	7
102	Modeling and evaluation of Radio over Fiber communication systems on employing nanophotonic devices. , 2011, , .		3
103	Effect of low level substitution of Srâ€“Ba on transport and magnetic behaviour of La0Â·67Ca0Â·33MnO3. Bulletin of Materials Science, 2011, 34, 121-124.	1.7	2
104	Soliton-induced supercontinuum generation in liquid-filled photonic crystal fibre. Pramana - Journal of Physics, 2011, 77, 959-974.	1.8	5
105	Intensity redistribution and shape changing collision in coupled femtosecond solitons. European Physical Journal D, 2010, 57, 387-393.	1.3	6
106	Pattern formations in miscellaneous mixtures of Bose-Einstein condensates and the higher-dimensional time-gated Manakov system. Physical Review A, 2010, 82, .	2.5	16
107	Modulational instability and moving gap soliton in Boseâ€“Einstein condensation with Feshbach resonance management. Physica D: Nonlinear Phenomena, 2010, 239, 1-8.	2.8	13
108	Switching dynamics of a two-dimensional nonlinear couplers in a photopolymer â€” A variational approach. Pramana - Journal of Physics, 2010, 75, 1025-1034.	1.8	1

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109	Elements of optical solitons: An overview. Resonance, 2010, 15, 643-666.	0.3	8
110	Efficient Pulse Compression Using Tapered Photonic Crystal Fiber at 850 nm. IEEE Journal of Quantum Electronics, 2010, 46, 1795-1803.	1.9	33
111	Modeling photonic crystal fiber for efficient soliton pulse propagation at 850 nm. Optics Communications, 2010, 283, 5000-5006.	2.1	23
112	Modulation instability scenario in negative index materials. Journal of Modern Optics, 2010, 57, 436-443.	1.3	14
113	Modulational-instability-induced supercontinuum generation with saturable nonlinear response. Physical Review A, 2010, 82, .	2.5	59
114	Impact of fourth-order dispersion in the modulational instability spectra of wave propagation in glass fibers with saturable nonlinearity. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1143.	2.1	64
115	Supercontinuum generation in liquid-filled photonic crystal fiber with slow nonlinear response. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1763.	2.1	58
116	Generation of self-induced-transparency gap solitons by modulational instability in uniformly doped fiber Bragg gratings. Physical Review A, 2010, 81, .	2.5	7
117	Exact quasi-soliton solutions and soliton interaction for the inhomogeneous coupled nonlinear SchrÃ¶dinger equations. Journal of Modern Optics, 2010, 57, 261-272.	1.3	19
118	Similaritons in nonlinear optical systems. European Physical Journal: Special Topics, 2009, 173, 107-119.	2.6	4
119	Variational method in soliton theory. European Physical Journal: Special Topics, 2009, 173, 341-346.	2.6	1
120	Similariton interactions in nonlinear graded-index waveguide amplifiers. Physical Review A, 2008, 78, .	2.5	50
121	Similaritons in nonlinear optical systems. Optics Express, 2008, 16, 6352.	3.4	67
122	Soliton Interaction Under Soliton Dispersion Management. IEEE Journal of Quantum Electronics, 2008, 44, 383-390.	1.9	66
123	A fully vectorial effective index method to analyse the propagation properties of microstructured fiber. Photonics and Nanostructures - Fundamentals and Applications, 2007, 5, 171-177.	2.0	35
124	Dispersion and nonlinear management for femtosecond optical solitons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 361, 504-508.	2.1	72
125	Dispersion and Nonlinear Management for Femtosecond Optical Solitons. , 2006, , .		2
126	Picosecond Optical Soliton Compression: Exactly Integrable Models. , 2006, , .		1

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127	Modulational instability in optical fibers with arbitrary higher-order dispersion and delayed Raman response. Optics Communications, 2006, 266, 142-150.	2.1	34
128	Optical Soliton Amplification in Fiber Optics Systems with Varying Dispersion. , 2006, , .		1
129	Modulational instability of two-component Bose-Einstein condensates in a quasi-one-dimensional geometry. Physical Review A, 2005, 71, .	2.5	25
130	Generation of Bragg solitons through modulation instability in a Bragg grating structure. Chaos, 2005, 15, 037109.	2.5	12
131	Modulational instability in fiber Bragg grating with non-Kerr nonlinearity. IEEE Journal of Quantum Electronics, 2005, 41, 789-796.	1.9	37
132	Modulational instability in a fibre and a fibre Bragg grating. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S436-S452.	1.4	19
133	Bright and dark spatial solitons in coupled photorefractive media. Journal of Modern Optics, 2004, 51, 415-421.	1.3	2
134	Bright and dark Bragg solitons in a fiber Bragg grating. IEEE Journal of Quantum Electronics, 2003, 39, 1492-1497.	1.9	10
135	Alternative coupled integrable optical soliton system with higher-order effects. Physical Review E, 2003, 68, 066607.	2.1	7
136	Evolution of polarization of a nonlinear pulse in birefringent fiber with quintic effects. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 301, 433-441.	2.1	3
137	Optical Solitons in Presence of Kerr Dispersion and Self-Frequency Shift. Physical Review Letters, 1996, 76, 3955-3958.	7.8	216