

Nithyanandan Kanagaraj

List of Publications by Year in descending order

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137
papers

3,009
citations

230014

27
h-index

214428

50
g-index

138
all docs

138
docs citations

138
times ranked

1358
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.	2.7	5
2	Modulational instability in a non-Kerr photonic Lieb lattice with metamaterials. Physical Review A, 2021, 103, .	1.0	2
3	Active Optical Fibers and Components for Fiber Lasers Emitting in the 2- $\hat{1}$ / ₄ m Spectral Range. Materials, 2020, 13, 5177.	1.3	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.	1.1	19
5	Buildup of incoherent dissipative solitons in ultrafast fiber lasers. Physical Review Research, 2020, 2, .	1.3	24
6	Phase dynamics of inhomogeneous Manakov vector solitons. Physical Review E, 2019, 100, 012213.	0.8	15
7	Influence of modified saturable nonlinearity on modulational instability in metamaterial with presence of self-steepening. AIP Conference Proceedings, 2019, , .	0.3	0
8	Chirped self-similar solitary waves for the generalized nonlinear Schrödinger equation with distributed two-power-law nonlinearities. Physical Review E, 2019, 100, 042208.	0.8	8
9	All-Fiber Mode-Locked Thulium Doped Fiber Laser using a Novel Femtosecond Laser Inscribed 45° Tilted Fiber Grating. , 2019, , .		0
10	All fiber mode-locked thulium-doped fiber laser using a novel femtosecond-laser-inscribed 45°-plane-by-plane-tilted fiber grating. Laser Physics Letters, 2019, 16, 095104.	0.6	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.	1.3	17
13	Dynamics of distorted and undistorted soliton molecules in a mode-locked fiber laser. Physical Review A, 2019, 99, .	1.0	35
14	Ultra-broadband continuum generation in silica based defective core photonic crystal fiber. Optik, 2019, 191, 121-131.	1.4	7
15	Energy diagram and stability range of families of soliton molecules in fibers. Optical and Quantum Electronics, 2019, 51, 1.	1.5	1
16	Optical soliton molecular complexes in a passively mode-locked fibre laser. Nature Communications, 2019, 10, 830.	5.8	192
17	Instabilities and solitons in systems with spatio-temporal dispersions and non paraxial approximations. Optik, 2019, 182, 1120-1130.	1.4	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. <i>Optik</i> , 2019, 181, 956-963.	1.4	2
20	Rational and semi-rational solutions of the Kadomtsevâ€“Petviashvili-based system. <i>Nonlinear Dynamics</i> , 2019, 95, 1133-1146.	2.7	6
21	Self-similar pulse compression by defective core photonic crystal fiber with cubicâ€“quintic nonlinearities. <i>Optik</i> , 2019, 178, 591-601.	1.4	8
22	Optimization of acousto-optic optical frequency combs. <i>Optics Express</i> , 2019, 27, 14842.	1.7	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. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	0
25	Black and gray soliton interactions and cascade compression in the variable coefficient nonlinear SchrÃ¶dinger equation. <i>Optik</i> , 2018, 159, 176-188.	1.4	9
26	Spotlighting phase separation in Rashba spin-orbit coupled Boseâ€“Einstein condensates in two dimensions. <i>Journal of Physics Communications</i> , 2018, 2, 025008.	0.5	8
27	Impact of higher order dispersion and nonlinearities on modulational instability in a dual-core optical fiber. <i>European Physical Journal D</i> , 2018, 72, 1.	0.6	15
28	Multistability and switching in oppositely-directed saturated coupler. <i>Optics Communications</i> , 2018, 416, 145-151.	1.0	8
29	Influence of spatial delay on the modulational instability in a composite system with a controllable nonlinearity. <i>Physical Review E</i> , 2018, 97, 062208.	0.8	6
30	Modulation instability in two-dimensional waveguide arrays with alternating signs of refractive index. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2018, 35, 2057.	0.9	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. <i>Physical Review A</i> , 2017, 95, .	1.0	19
34	Dynamics of vector dark solitons propagation and tunneling effect in the variable coefficient coupled nonlinear SchrÃ¶dinger equation. <i>Chaos</i> , 2017, 27, 023113.	1.0	13
35	W-shaped, bright and kink solitons in the quadratic-cubic nonlinear SchrÃ¶dinger equation with time and space modulated nonlinearities and potentials. <i>Journal of Modern Optics</i> , 2017, 64, 1368-1376.	0.6	18
36	Ultrashort dark solitons interactions and nonlinear tunneling in the modified nonlinear SchrÃ¶dinger equation with variable coefficient. <i>Optical Fiber Technology</i> , 2017, 37, 11-20.	1.4	19

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37	Solitons in the nonlinear Schrödinger equation with two power-law nonlinear terms modulated in time and space. <i>Physical Review E</i> , 2017, 95, 062208.	0.8	15
38	Real-Time Observation of Internal Motion within Ultrafast Dissipative Optical Soliton Molecules. <i>Physical Review Letters</i> , 2017, 118, 243901.	2.9	341
39	Vector dynamics of incoherent dissipative optical solitons. <i>Optica</i> , 2017, 4, 1239.	4.8	82
40	Spatial modulation instability of coupled surface plasmon polaritons in a dielectric-metal-dielectric structure. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2017, 34, 198.	0.9	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 spin-orbit coupled Bose-Einstein condensates. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2016, 49, 245301.	0.6	22
44	Self-similar localized pulses for the nonlinear Schrödinger equation with distributed cubic-quintic nonlinearity. <i>Physical Review A</i> , 2016, 94, .	1.0	20
45	Disorder-induced vortex lattice melting in a Bose-Einstein condensate. <i>Physical Review A</i> , 2016, 93, .	1.0	10
46	Rogue wave triggered at a critical frequency of a nonlinear resonant medium. <i>Physical Review E</i> , 2016, 93, 062201.	0.8	38
47	Influence of birefringence in the instability spectra of oppositely directed coupler with negative index material channel. <i>Physical Review A</i> , 2016, 93, .	1.0	15
48	Chirped solitary pulses for a nonic nonlinear Schrödinger equation on a continuous-wave background. <i>Physical Review A</i> , 2016, 93, .	1.0	61
49	Optical Bistability and Switching in Oppositely Directed Coupler. <i>IEEE Journal of Quantum Electronics</i> , 2016, 52, 1-8.	1.0	6
50	A theoretical study on threshold conditions of modulation instability in oppositely directed couplers. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 125502.	1.0	9
51	Vortex lattice disorder in pseudorandom potential in rotating Bose-Einstein condensate. <i>AIP Conference Proceedings</i> , 2016, , .	0.3	0
52	Modulation instability in a triangular three-core coupler with a negative-index material channel. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 035102.	1.0	16
53	Co-propagation of two optical fields in a semiconductor doped dispersion decreasing fiber and modulational instability induced by cross-phase modulation. <i>Laser Physics</i> , 2016, 26, 015401.	0.6	6
54	Effect of Temperature on Supercontinuum Generation in Water-Core Photonic Crystal Fiber. <i>IEEE Photonics Technology Letters</i> , 2016, 28, 1209-1212.	1.3	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, .	1.0	46
57	Dynamical stability of dipolar Bose-Einstein condensates with temporal modulation of the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML">\langle \text{mml:mi}>s\langle /mml:mi>\langle /mml:math>$ -wave scattering length. Physical Review E, 2015, 92, 032905.	0.8	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, , .	0.3	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.	0.3	0
61	A projection operator approach for computing the dynamics of AS ₂ S ₃ chalcogenide birefringent photonic crystal fiber coupler. Journal of Optics (United Kingdom), 2015, 17, 025504.	1.0	1
62	The Darboux transformation of the Kunduâ€Eckhaus equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20150236.	1.0	82
63	Soliton fission and supercontinuum generation in photonic crystal fibre for optical coherence tomography application. Pramana - Journal of Physics, 2015, 85, 993-1007.	0.9	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.	0.3	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.	0.9	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.	0.9	24
67	Power play in the supercontinuum spectra of saturable nonlinear media. Laser Physics, 2014, 24, 045405.	0.6	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.	0.8	32
70	Modulational instability of nematic phase. Pramana - Journal of Physics, 2014, 82, 307-312.	0.9	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.	0.9	9
72	Few-cycle optical rogue waves: Complex modified Kortewegâ€de Vries equation. Physical Review E, 2014, 89, 062917.	0.8	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. <i>Physical Review E</i> , 2014, 89, 052917.	0.8	18
74	Pinning of hidden vortices in Bose-Einstein condensates. <i>Physical Review A</i> , 2014, 89, .	1.0	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. <i>European Physical Journal: Special Topics</i> , 2013, 222, 625-640.	1.2	1
78	Realization of all-optical logic gates through three core photonic crystal fiber. <i>Optics Communications</i> , 2013, 296, 124-131.	1.0	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. <i>Optical Fiber Technology</i> , 2013, 19, 348-358.	1.4	25
82	Higher-order nonlinear Schrödinger equation with derivative non-Kerr nonlinear terms: A model for sub-10-fs-pulse propagation. <i>Physical Review A</i> , 2013, 88, .	1.0	72
83	Observation of two state behavior in the instability spectra of saturable nonlinear media. <i>European Physical Journal: Special Topics</i> , 2013, 222, 821-825.	1.2	6
84	Designing a class of asymmetric twin core photonic crystal fibers for switching and multi-frequency generation. <i>Optical Fiber Technology</i> , 2013, 19, 556-564.	1.4	12
85	Circularly polarized few-cycle optical rogue waves: Rotating reduced Maxwell-Bloch equations. <i>Physical Review E</i> , 2013, 88, 062925.	0.8	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. <i>Optics Communications</i> , 2013, 303, 46-55.	1.0	19
89	Modulational instability in a twin-core fiber with the effect of saturable nonlinear response and coupling coefficient dispersion. <i>Physical Review A</i> , 2013, 87, .	1.0	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.	0.9	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.	0.9	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, .	1.0	41
97	Modulational instability in metamaterials with saturable nonlinearity and higher-order dispersion. Journal of Modern Optics, 2012, 59, 972-979.	0.6	16
98	Impact of dispersion and non-Kerr nonlinearity on the modulational instability of the higher-order nonlinear SchrÅ¶dinger equation. Physical Review A, 2012, 85, .	1.0	63
99	A new era of exotic electromagnetism. Resonance, 2012, 17, 163-176.	0.2	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.	2.7	13
101	Higher order dispersion effects in the noninstantaneous nonlinear SchrÅ¶dinger equation. Journal of Modern Optics, 2011, 58, 924-931.	0.6	7
102	Modeling and evaluation of Radio over Fiber communication systems on employing nanophotonic devices. , 2011, , .		3
103	Effect of low level substitution of SrÅ“Ba on transport and magnetic behaviour of La0Å·67Ca0Å·33MnO3. Bulletin of Materials Science, 2011, 34, 121-124.	0.8	2
104	Soliton-induced supercontinuum generation in liquid-filled photonic crystal fibre. Pramana - Journal of Physics, 2011, 77, 959-974.	0.9	5
105	Intensity redistribution and shape changing collision in coupled femtosecond solitons. European Physical Journal D, 2010, 57, 387-393.	0.6	6
106	Pattern formations in miscellaneous mixtures of Bose-Einstein condensates and the higher-dimensional time-gated Manakov system. Physical Review A, 2010, 82, .	1.0	16
107	Modulational instability and moving gap soliton in BoseÅ“Einstein condensation with Feshbach resonance management. Physica D: Nonlinear Phenomena, 2010, 239, 1-8.	1.3	13
108	Switching dynamics of a two-dimensional nonlinear couplers in a photopolymer Å“ A variational approach. Pramana - Journal of Physics, 2010, 75, 1025-1034.	0.9	1

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109	Elements of optical solitons: An overview. Resonance, 2010, 15, 643-666.	0.2	8
110	Efficient Pulse Compression Using Tapered Photonic Crystal Fiber at 850 nm. IEEE Journal of Quantum Electronics, 2010, 46, 1795-1803.	1.0	33
111	Modeling photonic crystal fiber for efficient soliton pulse propagation at 850 nm. Optics Communications, 2010, 283, 5000-5006.	1.0	23
112	Modulation instability scenario in negative index materials. Journal of Modern Optics, 2010, 57, 436-443.	0.6	14
113	Modulational-instability-induced supercontinuum generation with saturable nonlinear response. Physical Review A, 2010, 82, .	1.0	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.	0.9	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.	0.9	58
116	Generation of self-induced-transparency gap solitons by modulational instability in uniformly doped fiber Bragg gratings. Physical Review A, 2010, 81, .	1.0	7
117	Exact quasi-soliton solutions and soliton interaction for the inhomogeneous coupled nonlinear Schrödinger equations. Journal of Modern Optics, 2010, 57, 261-272.	0.6	19
118	Similaritons in nonlinear optical systems. European Physical Journal: Special Topics, 2009, 173, 107-119.	1.2	4
119	Variational method in soliton theory. European Physical Journal: Special Topics, 2009, 173, 341-346.	1.2	1
120	Similariton interactions in nonlinear graded-index waveguide amplifiers. Physical Review A, 2008, 78, .	1.0	50
121	Similaritons in nonlinear optical systems. Optics Express, 2008, 16, 6352.	1.7	67
122	Soliton Interaction Under Soliton Dispersion Management. IEEE Journal of Quantum Electronics, 2008, 44, 383-390.	1.0	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.	1.0	35
124	Dispersion and nonlinear management for femtosecond optical solitons. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 361, 504-508.	0.9	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.	1.0	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, .	1.0	25
130	Generation of Bragg solitons through modulation instability in a Bragg grating structure. Chaos, 2005, 15, 037109.	1.0	12
131	Modulational instability in fiber Bragg grating with non-Kerr nonlinearity. IEEE Journal of Quantum Electronics, 2005, 41, 789-796.	1.0	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.	0.6	2
134	Bright and dark Bragg solitons in a fiber Bragg grating. IEEE Journal of Quantum Electronics, 2003, 39, 1492-1497.	1.0	10
135	Alternative coupled integrable optical soliton system with higher-order effects. Physical Review E, 2003, 68, 066607.	0.8	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.	0.9	3
137	Optical Solitons in Presence of Kerr Dispersion and Self-Frequency Shift. Physical Review Letters, 1996, 76, 3955-3958.	2.9	216