

Susmita Sarkar

List of Publications by Year in descending order

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56
papers

780
citations

623734

14
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580821

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56
times ranked

316
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of nonadiabaticity of dust charge variation on dust acoustic waves: Generation of dust acoustic shock waves. <i>Physical Review E</i> , 2001, 63, 046406.	2.1	138
2	Effect of nonadiabatic dust charge variations on nonlinear dust acoustic waves with nonisothermal ions. <i>Physics of Plasmas</i> , 2002, 9, 1150-1156.	1.9	66
3	COVID-19 pandemic in India: a mathematical model study. <i>Nonlinear Dynamics</i> , 2020, 102, 537-553.	5.2	60
4	Mathematical model of zika virus dynamics with vector control and sensitivity analysis. <i>Infectious Disease Modelling</i> , 2020, 5, 23-41.	1.9	31
5	Dust acoustic shock wave at high dust density. <i>Physics of Plasmas</i> , 2003, 10, 977-983.	1.9	30
6	Small Amplitude Nonlinear Dust Ion Acoustic Waves in a Magnetized Dusty Plasma With Charge Fluctuation. <i>Physica Scripta</i> , 2001, 63, 395-403.	2.5	29
7	STABILITY AND BIFURCATION ANALYSIS OF A DISCRETE PREY-PREDATOR MODEL WITH SQUARE-ROOT FUNCTIONAL RESPONSE AND OPTIMAL HARVESTING. <i>Journal of Biological Systems</i> , 2020, 28, 91-110.	1.4	28
8	Mathematical modelling of COVID-19: A case study of Italy. <i>Mathematics and Computers in Simulation</i> , 2022, 194, 1-18.	4.4	26
9	A study of fractional Schrödinger equation composed of Jumarie fractional derivative. <i>Pramana - Journal of Physics</i> , 2017, 88, 1.	1.8	22
10	The Complex Dynamical Behavior of a Prey-Predator Model with Holling Type-III Functional Response and Non-Linear Predator Harvesting. <i>International Journal of Modelling and Simulation</i> , 2022, 42, 287-304.	3.3	19
11	Time independent fractional Schrödinger equation for generalized Mie-type potential in higher dimension framed with Jumarie type fractional derivative. <i>Journal of Mathematical Physics</i> , 2018, 59, .	1.1	18
12	Complex dynamics of a generalist predator-prey model with hunting cooperation in predator. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	18
13	Effect of secondary electron emission on the Jeans instability in a dusty plasma. <i>Physics of Plasmas</i> , 2007, 14, 042106.	1.9	16
14	Effect of compressibility on the Rayleigh-Taylor and Richtmyer-Meshkov instability induced nonlinear structure at two fluid interface. <i>Physics of Plasmas</i> , 2009, 16, .	1.9	16
15	Study of Stability and Bifurcation of Three Species Food Chain Model with Non-monotone Functional Response. <i>International Journal of Applied and Computational Mathematics</i> , 2021, 7, 1.	1.6	16
16	Qualitative Analysis and Optimal Control Strategy of an SIR Model with Saturated Incidence and Treatment. <i>Differential Equations and Dynamical Systems</i> , 2023, 31, 53-67.	1.0	15
17	Effect of secondary electron emission on the propagation of dust acoustic waves in a dusty plasma. <i>Physics of Plasmas</i> , 2004, 11, 1850-1859.	1.9	12
18	Study of memory effect in an inventory model for deteriorating items with partial backlogging. <i>Computers and Industrial Engineering</i> , 2020, 148, 106705.	6.3	12

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19	Combined Effect of Secondary Electron Emission, Plasma Ion and Electron Number Density Variation due to Dust Charging and Ionization-Recombination Processes on Dust Ion Acoustic Wave Propagation. <i>Physica Scripta</i> , 2005, 71, 298-302.	2.5	11
20	Effect of secondary electron emission on Jean's instability in a complex plasma in the presence of nonthermal ions. <i>Physica Scripta</i> , 2011, 84, 045501.	2.5	11
21	Effect of emergent carrying capacity in an eco-epidemiological system. <i>Mathematical Methods in the Applied Sciences</i> , 2016, 39, 806-823.	2.3	11
22	Stability and bifurcation analysis of a discrete prey-predator model with sigmoid functional response and Allee effect. <i>Rendiconti Del Circolo Matematico Di Palermo</i> , 2021, 70, 253-273.	1.3	11
23	Nonlinear acoustic mode at high dust density. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2002, 298, 49-54.	2.1	10
24	Bump-on-tail instability in space plasmas. <i>Physics of Plasmas</i> , 2015, 22, .	1.9	10
25	Jean's instability in a drifting dusty plasma in the presence of secondary electron emission. <i>Physica Scripta</i> , 2010, 81, 025504.	2.5	9
26	Characteristics of nonlinear dust acoustic waves in a Lorentzian dusty plasma with effect of adiabatic and nonadiabatic grain charge fluctuation. <i>AIP Advances</i> , 2016, 6, .	1.3	9
27	Higher-dimensional fractional time-independent Schrödinger equation via fractional derivative with generalised pseudoharmonic potential. <i>Pramana - Journal of Physics</i> , 2019, 93, 1.	1.8	9
28	Chaotic dynamics of a tri-topic food chain model with Beddington-DeAngelis functional response in presence of fear effect. <i>Nonlinear Dynamics</i> , 2021, 106, 2621-2653.	5.2	9
29	Studies of dynamical behaviours of an imprecise predator-prey model with Holling type II functional response under interval uncertainty. <i>European Physical Journal Plus</i> , 2022, 137, 1.	2.6	8
30	GLOBAL DYNAMICS OF A PREY-PREDATOR MODEL WITH HOLLING TYPE III FUNCTIONAL RESPONSE IN THE PRESENCE OF HARVESTING. <i>Journal of Biological Systems</i> , 2022, 30, 225-260.	1.4	8
31	Effect of secondary electron emission and other sources on the propagation of dust ion acoustic waves in a complex plasma with positively charged dust grains. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2007, 364, 291-296.	2.1	7
32	Role of positively charged dust grains on dust acoustic wave propagation in presence of nonthermal ions. <i>Physics of Plasmas</i> , 2013, 20, 084501.	1.9	7
33	Fractional Klein-Gordon equation composed of Jumarie fractional derivative and its interpretation by a smoothness parameter. <i>Pramana - Journal of Physics</i> , 2018, 90, 1.	1.8	7
34	Global dynamics of a tritrophic food chain model subject to the Allee effects in the prey population with sexually reproductive generalized-type top predator. <i>Computational and Mathematical Methods</i> , 2020, 2, e1079.	0.8	7
35	Qualitative Analysis and Optimal Control of a Two-Strain Dengue Model with its Co-infections. <i>International Journal of Applied and Computational Mathematics</i> , 2020, 6, 1.	1.6	6
36	Unraveling the combined actions of a Holling type III predator-prey model incorporating Allee response and memory effects. <i>Computational and Mathematical Methods</i> , 2021, 3, e1130.	0.8	6

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37	Fractional Weierstrass Function by Application of Jumarie Fractional Trigonometric Functions and Its Analysis. <i>Advances in Pure Mathematics</i> , 2015, 05, 717-732.	0.3	6
38	Effect of Electron and/or Ion Nonthermality on Dust Acoustic Wave Propagation in a Complex Plasma in Presence of Positively Charged Dust Grains Generated by Secondary Electron Emission Process. <i>Journal of Modern Physics</i> , 2016, 07, 74-86.	0.6	6
39	Effect of secondary electron emission on nonlinear dust acoustic wave propagation in a complex plasma with negative equilibrium dust charge. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	5
40	Effect of secondary electron emission on nonlinear dust acoustic wave propagation in a complex plasma with positive equilibrium dust charge. <i>Physics of Plasmas</i> , 2017, 24, .	1.9	4
41	The effect of negative ion population on dust acoustic wave propagation in a self gravitating Lorentzian dusty plasma. <i>European Physical Journal D</i> , 2020, 74, 1.	1.3	4
42	Analytical study of D-dimensional fractional Klein-Gordon equation with a fractional vector plus a scalar potential. <i>Pramana - Journal of Physics</i> , 2020, 94, 1.	1.8	4
43	Nonlinear dust-acoustic wave propagation in a Lorentzian dusty plasma in presence of negative ions. <i>Journal of Plasma Physics</i> , 2018, 84, .	2.1	3
44	Stability and bifurcation analysis of a ratio dependent discrete prey-predator model with linear harvesting. , 2018, , .		3
45	Application of fractional calculus to distinguish left ventricular hypertrophy with normal ECG. , 2018, , .		3
46	The Role of Isolation and Vector Control in the Prevention of Dengue: A Case Study of 2014 Dengue Outbreak in Singapore. <i>International Journal of Applied and Computational Mathematics</i> , 2021, 7, 1.	1.6	3
47	Effect of ion nonthermality on nonlinear dust acoustic wave propagation in a complex plasma in presence of secondary electron emission. <i>AIP Advances</i> , 2017, 7, 075113.	1.3	2
48	Approximate Solution of Space-Time Fractional KdV Equation and Coupled KdV Equations. <i>Journal of the Physical Society of Japan</i> , 2020, 89, 014002.	1.6	2
49	Study of two stream instabilities in Lorentzian dusty plasma. <i>Physics of Plasmas</i> , 2021, 28, 013701.	1.9	2
50	Analytic Solution of the Fractional Order Non-linear Schrödinger Equation and the Fractional Order Klein Gordon Equation. <i>Differential Equations and Dynamical Systems</i> , 2022, 30, 499-512.	1.0	2
51	Effect of Streaming Negative Ions on Dust Acoustic Wave Propagation in Complex Plasma. <i>AIP Conference Proceedings</i> , 2005, , .	0.4	1
52	Effect of collision on dust acoustic and dust ion acoustic wave instabilities in self-gravitating Lorentzian dusty plasma. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	1
53	Complex dynamics of a prey-predator interaction model with Holling type-II functional response incorporating the effect of fear on prey and non-linear predator harvesting. <i>Rendiconti Del Circolo Matematico Di Palermo</i> , 0, , 1.	1.3	1
54	Onset of turbulence induced by electron nonthermality in a complex plasma in presence of positively charged dust grains. <i>AIP Advances</i> , 2018, 8, 035210.	1.3	0

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55	Study of Dust Acoustic Wave Propagation in a Lorentzian Dusty Plasma in Presence of Secondary Electron Emission. Brazilian Journal of Physics, 2019, 49, 738-744.	1.4	0
56	The study of nonlinear dust acoustic wave propagation in a Lorentzian dusty Vlasov plasma in the presence of negative ions. Indian Journal of Physics, 2020, 94, 1653-1663.	1.8	0