Tim Marchant

List of Publications by Year in descending order

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79 papers	1,250 citations	394286 19 h-index	434063 31 g-index
80 all docs	80 docs citations	80 times ranked	602 citing authors

#	Article	IF	Citations
1	Interactions of Self-Localised Optical Wavepackets in Reorientational Soft Matter. Applied Sciences (Switzerland), 2022, 12, 2607.	1.3	2
2	Nematic Dispersive Shock Waves from Nonlocal to Local. Applied Sciences (Switzerland), 2021, 11, 4736.	1.3	7
3	Numerical and analytical study of undular bores governed by the full water wave equations and bidirectional Whithamâ€“Boussinesq equations. Physics of Fluids, 2021, 33, .	1.6	12
4	Higher-dimensional extended shallow water equations and resonant soliton radiation. Physical Review Fluids, 2021, 6, .	1.0	3
5	2â€Ð solitary waves in thermal media with nonsymmetric boundary conditions. Studies in Applied Mathematics, 2019, 142, 586-607.	1.1	4
6	Dispersive shock waves governed by the Whitham equation and their stability. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20180278.	1.0	12
7	Optical dispersive shock waves in defocusing colloidal media. Physica D: Nonlinear Phenomena, 2017, 342, 45-56.	1.3	11
8	Higher-order modulation theory for resonant flow over topography. Physics of Fluids, 2017, 29, 077101.	1.6	3
9	PROFESSOR JONATHAN M. BORWEIN. Journal of the Australian Mathematical Society, 2016, 101, 289-289.	0.3	0
10	Circular dispersive shock waves in colloidal media. Journal of Nonlinear Optical Physics and Materials, 2016, 25, 1650044.	1.1	1
11	Non-smooth feedback control for Belousovâ€“Zhabotinskii reactionâ€“diffusion equations: semi-analytical solutions. Journal of Mathematical Chemistry, 2016, 54, 1632-1657.	0.7	10
12	Cubic autocatalysis in a reactionâ€“diffusion annulus: semi-analytical solutions. Zeitschrift Fur Angewandte Mathematik Und Physik, 2016, 67, 1.	0.7	0
13	The diffusive Lotkaâ€“Volterra predatorâ€“prey system with delay. Mathematical Biosciences, 2015, 270, 30-40.	0.9	23
14	Dispersive shock waves in colloids with temperature dependent compressibility. Journal of Nonlinear Optical Physics and Materials, 2014, 23, 1450043.	1.1	3
15	Semi-analytical solutions for the 1- and 2-D diffusive Nicholson's blowflies equation. IMA Journal of Applied Mathematics, 2014, 79, 175-199.	0.8	17
16	Mixed quadratic-cubic autocatalytic reactionâ€“diffusion equations: Semi-analytical solutions. Applied Mathematical Modelling, 2014, 38, 5160-5173.	2.2	14
17	Semi-analytical solutions for the reversible Selkov model with feedback delay. Applied Mathematics and Computation, 2014, 232, 49-59.	1.4	16
18	Solitary waves in nematic liquid crystals. Physica D: Nonlinear Phenomena, 2014, 268, 106-117.	1.3	25

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19	Colloidal solitary waves with temperature dependent compressibility. Journal of Optics (United) Tj ETQq1 1 0.784314 rgBT /Overlock	1.0	4
20	Optical solitary waves in thermal media with non-symmetric boundary conditions. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 055201.	0.7	9
21	Semi-analytical solutions for dispersive shock waves in colloidal media. Journal of Physics B: Atomic, Molecular and Optical Physics, 2012, 45, 145401.	0.6	10
22	APPROXIMATE TECHNIQUES FOR DISPERSIVE SHOCK WAVES IN NONLINEAR MEDIA. Journal of Nonlinear Optical Physics and Materials, 2012, 21, 1250035.	1.1	15
23	Analytical solution for electrolyte concentration distribution in lithium-ion batteries. Journal of Applied Electrochemistry, 2012, 42, 189-199.	1.5	19
24	Reorientational versus Kerr dark and gray solitary waves using modulation theory. Physical Review E, 2011, 84, 066602.	0.8	52
25	The analytical evolution of NLS solitons due to the numerical discretization error. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 505205.	0.7	0
26	Evolution of solitary waves for a perturbed nonlinear SchrÃ¶dinger equation. Applied Mathematics and Computation, 2010, 216, 3642-3651.	1.4	6
27	Modulation analysis of boundary-induced motion of optical solitary waves in a nematic liquid crystal. Physical Review A, 2009, 79, .	1.0	24
28	A perturbation DRBEM model for weakly nonlinear wave run-ups around islands. Engineering Analysis With Boundary Elements, 2009, 33, 63-76.	2.0	9
29	Soliton perturbation theory for a higher order Hirota equation. Mathematics and Computers in Simulation, 2009, 80, 770-778.	2.4	13
30	Semi-analytical solutions for a Grayâ€“Scott reactionâ€“diffusion cell with an applied electric field. Chemical Engineering Science, 2008, 63, 495-502.	1.9	5
31	Dipole soliton formation in a nematic liquid crystal in the nonlocal limit. Physica D: Nonlinear Phenomena, 2008, 237, 1088-1102.	1.3	20
32	Undular bores and the initial-boundary value problem for the modified Korteweg-de Vries equation. Wave Motion, 2008, 45, 540-555.	1.0	29
33	Evolution of Higherâ€Order Gray Hirota Solitary Waves. Studies in Applied Mathematics, 2008, 121, 117-139.	1.1	2
34	Mathematical modelling of nematicons and their interactions. , 2008, , .		0
35	Nonlocal validity of an asymptotic one-dimensional nematicon solution. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 365201.	0.7	10
36	Collisionless shock resolution in nematic liquid crystals. Physical Review A, 2008, 78, .	1.0	24

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37	Solitary wave interaction for a higher-order nonlinear SchrÃ¶dinger equation. IMA Journal of Applied Mathematics, 2007, 72, 206-222.	0.8	7
38	Finding your level. New Scientist, 2007, 194, 27.	0.0	0
39	Self-heating in compost piles due to biological effects. Chemical Engineering Science, 2007, 62, 4612-4619.	1.9	29
40	Asymptotic solitons on a non-zero mean level. Chaos, Solitons and Fractals, 2007, 32, 1328-1336.	2.5	7
41	Numerical simulation of contaminant flow in a wool scour. Mathematical and Computer Modelling, 2007, 46, 499-512.	2.0	1
42	An undular bore solution for the higher-order Kortewegâ€“de Vries equation. Journal of Physics A, 2006, 39, L563-L569.	1.6	16
43	Solitary wave interaction and evolution for a higher-order Hirota equation. Wave Motion, 2006, 44, 92-106.	1.0	26
44	Undular bore solution of the Camassa-Holm equation. Physical Review E, 2006, 73, 057602.	0.8	10
45	Approximate solutions for magmon propagation from a reservoir. IMA Journal of Applied Mathematics, 2005, 70, 796-813.	0.8	19
46	Cubic autocatalysis with Michaelisâ€“Menten kinetics: semi-analytical solutions for the reactionâ€“diffusion cell. Chemical Engineering Science, 2004, 59, 3433-3440.	1.9	15
47	Asymptotic solitons for a third-order Kortewegâ€“de Vries equation. Chaos, Solitons and Fractals, 2004, 22, 261-270.	2.5	20
48	Microwave thawing of cylinders. Applied Mathematical Modelling, 2004, 28, 711-733.	2.2	20
49	Semi-analytical solutions for one- and two-dimensional pellet problems. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2004, 460, 2381-2394.	1.0	14
50	Asymptotic solitons for a higher-order modified Kortewegâ€“de Vries equation. Physical Review E, 2002, 66, 046623.	0.8	21
51	The microwave heating of three-dimensional blocks: semi-analytical solutions. IMA Journal of Applied Mathematics, 2002, 67, 145-175.	0.8	3
52	Numerical solitary wave interaction: the order of the inelastic effect. ANZIAM Journal, 2002, 44, 95-102.	0.3	7
53	The initial boundary problem for the Korteweg-de Vries equation on the negative quarter-plane. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 857-871.	1.0	26
54	Cubic autocatalytic reactionâ€“diffusion equations: semiâ€“analytical solutions. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 873-888.	1.0	37

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55	The occurrence of limit-cycles during feedback control of microwave heating. Mathematical and Computer Modelling, 2002, 35, 1095-1118.	2.0	5
56	Highâ€Order Interaction of Solitary Waves on Shallow Water. Studies in Applied Mathematics, 2002, 109, 1-17.	1.1	19
57	Semi-analytical solutions for continuous-flow microwave reactors. Journal of Engineering Mathematics, 2002, 44, 125-145.	0.6	4
58	On the heating of a two-dimensional slab in a microwave cavity: aperture effects. ANZIAM Journal, 2001, 43, 137-148.	0.3	5
59	Solitary wave interaction for the extended BBM equation. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2000, 456, 433-453.	1.0	14
60	Coupled Kortewegâ€“de Vries equations describing, to high-order, resonant flow of a fluid over topography. Physics of Fluids, 1999, 11, 1797-1804.	1.6	5
61	Asymptotic solitons of the extended Kortewegâ€“de Vries equation. Physical Review E, 1999, 59, 3745-3748.	0.8	18
62	Microwave thawing of slabs. Applied Mathematical Modelling, 1999, 23, 363-383.	2.2	10
63	The microwave heating of two-dimensional slabs with small Arrhenius absorptivity. IMA Journal of Applied Mathematics, 1999, 62, 137-166.	0.8	18
64	The Steady-State Microwave Heating of Slabs with Small Arrhenius Absorptivity. Journal of Engineering Mathematics, 1998, 33, 219-234.	0.6	12
65	Pulse evolution for marangoni-bÃ©nard convection. Mathematical and Computer Modelling, 1998, 28, 45-58.	2.0	6
66	The evolution and interaction of Marangoni-BÃ©nard solitary waves. Wave Motion, 1996, 23, 307-320.	1.0	1
67	Modelling microwave heating. Applied Mathematical Modelling, 1996, 20, 3-15.	2.2	118
68	Soliton interaction for the extended Korteweg-de Vries equation. IMA Journal of Applied Mathematics, 1996, 56, 157-176.	0.8	82
69	A DRBEM model for microwave heating problems. Applied Mathematical Modelling, 1995, 19, 287-297.	2.2	32
70	Microwave heating of materials with impurities. Journal of Engineering Mathematics, 1994, 28, 379-400.	0.6	11
71	Microwave heating of materials with temperature-dependent wavespeed. Wave Motion, 1994, 19, 67-81.	1.0	7
72	Thermal waves for nonlinear hyperbolic heat conduction. Mathematical and Computer Modelling, 1993, 18, 111-121.	2.0	6

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73	Microwave Heating of Materials with Nonohmic Conductance. SIAM Journal on Applied Mathematics, 1993, 53, 1591-1612.	0.8	10
74	Initial-Boundary Value Problems for the Korteweg-de Vries Equation. IMA Journal of Applied Mathematics, 1991, 47, 247-264.	0.8	28
75	Reflection of nonlinear deep-water waves incident onto a wedge of arbitrary angle. Journal of the Australian Mathematical Society Series B Applied Mathematics, 1990, 32, 61-96.	0.3	3
76	The extended Korteweg-de Vries equation and the resonant flow of a fluid over topography. Journal of Fluid Mechanics, 1990, 221, 263-287.	1.4	102
77	A variational approach to the problem of deep-water waves forming a circular caustic. Journal of Fluid Mechanics, 1988, 194, 581.	1.4	4
78	Properties of short-crested waves in water of finite depth. Journal of the Australian Mathematical Society Series B Applied Mathematics, 1987, 29, 103-125.	0.3	36
79	Semi-analytical solutions for cubic autocatalytic reaction-diffusion equations; the effect of a precursor chemical. ANZIAM Journal, 0, 53, 511.	0.0	2