Ian Turner

List of Publications by Year
in descending order

128	4,108	134610	156644
papers	citations	34 h-index	58 g-index

133	133	133	2252
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A study of distributedâ€order time fractional diffusion models with continuous distribution weight functions. Numerical Methods for Partial Differential Equations, 2023, 39, 383-420.	2.0	3
2	Efficient Bayesian Synthetic Likelihood With Whitening Transformations. Journal of Computational and Graphical Statistics, 2022, 31, 50-63.	0.9	7
3	Spectral method for the two-dimensional time distributed-order diffusion-wave equation on a semi-infinite domain. Journal of Computational and Applied Mathematics, 2022, 399, 113712.	1.1	22
4	The application of the distributed-order time fractional Bloch model to magnetic resonance imaging. Applied Mathematics and Computation, 2022, 427, 127188.	1.4	5
5	A vertex-centred finite volume method for the 3D multi-term time and space fractional Blochâ€“Torrey equation with fractional Laplacian. Communications in Nonlinear Science and Numerical Simulation, 2022, 114, 106666.	1.7	4
6	Industry-based, transdisciplinary, complex problems as realistic settings for applying the M in STEM. International Journal of Mathematical Education in Science and Technology, 2021, 52, 653-668.	0.8	0
7	A fast algorithm for semi-analytically solving the homogenization boundary value problem for block locally-isotropic heterogeneous media. Applied Mathematical Modelling, 2021, 92, 23-43.	2.2	5
8	Accurate estimation of log MOE from non-destructive standing tree measurements. Annals of Forest Science, 2021, 78, 1.	0.8	2
9	A space-time spectral method for time-fractional Black-Scholes equation. Applied Numerical Mathematics, 2021, 165, 152-166.	1.2	17
10	Numerical Investigation into Coarse-Scale Models of Diffusion in Complex Heterogeneous Media. Transport in Porous Media, 2021, 139, 467-489.	1.2	4
11	A finite volume method for the two-dimensional time and space variable-order fractional Bloch-Torrey equation with variable coefficients on irregular domains. Computers and Mathematics With Applications, 2021, 98, 81-98.	1.4	11
12	A new approach for predicting board MOE from increment cores. Annals of Forest Science, 2021, 78, 1.	0.8	1
13	Implicit reconstructions of thin leaf surfaces from large, noisy point clouds. Applied Mathematical Modelling, 2021, 98, 416-434.	2.2	4
14	An unstructured mesh control volume method for two-dimensional space fractional diffusion equations with variable coefficients on convex domains. Journal of Computational and Applied Mathematics, 2020, 364, 112319.	1.1	17
15	Modelling fungal growth with fractional transport models. Communications in Nonlinear Science and Numerical Simulation, 2020, 84, 105157.	1.7	5
16	Finite difference/spectral methods for the two-dimensional distributed-order time-fractional cable equation. Computers and Mathematics With Applications, 2020, 80, 1523-1537.	1.4	11
17	Efficient numerical methods for the nonlinear two-sided space-fractional diffusion equation with variable coefficients. Applied Numerical Mathematics, 2020, 157, 55-68.	1.2	8
18	A novel finite element method for the distributed-order time fractional Cable equation in two dimensions. Computers and Mathematics With Applications, 2020, 80, 923-939.	1.4	17

#	Article	IF	Citations
19	An unstructured mesh finite difference/finite element method for the three-dimensional time-space fractional Bloch-Torrey equations on irregular domains. Journal of Computational Physics, 2020, 408, 109284.	1.9	23
20	Multiscale modelling approaches for simulating transport phenomena in heterogeneous porous media. AIP Conference Proceedings, 2020, , .	0.3	0
21	Efficient Multistep Methods for Tempered Fractional Calculus: Algorithms and Simulations. SIAM Journal of Scientific Computing, 2019, 41, A2510-A2535.	1.3	36
22	A coarse-grained multiscale model to simulate morphological changes of food-plant tissues undergoing drying. Soft Matter, 2019, 15, 901-916.	1.2	14
23	A discrete least squares collocation method for two-dimensional nonlinear time-dependent partial differential equations. Journal of Computational Physics, 2019, 394, 177-199.	1.9	7
24	Unstructured mesh finite difference/finite element method for the 2D time-space Riesz fractional diffusion equation on irregular convex domains. Applied Mathematical Modelling, 2018, 59, 441-463.	2.2	54
25	Numerical inversion of the fractional derivative index and surface thermal flux for an anomalous heat conduction model in a multi-layer medium. Applied Mathematical Modelling, 2018, 59, 514-526.	2.2	10
26	A Stable Fast Time-Stepping Method for Fractional Integral and Derivative Operators. Journal of Scientific Computing, 2018, 77, 283-307.	1.1	65
27	A 2D multi-term time and space fractional Bloch-Torrey model based on bilinear rectangular finite elements. Communications in Nonlinear Science and Numerical Simulation, 2018, 56, 270-286.	1.7	29
28	Modelling anomalous diffusion using fractional Blochâ€“Torrey equations on approximate irregular domains. Computers and Mathematics With Applications, 2018, 75, 7-21.	1.4	18
29	Finite element analysis of stress-related degrade during drying of Corymbia citriodora and Eucalyptus obliqua. Wood Science and Technology, 2018, 52, 67-89.	1.4	6
30	An efficient boundary element formulation for doubly-periodic two-dimensional Stokes flow with pressure boundary conditions. Journal of Computational Physics, 2018, 365, 18-36.	1.9	4
31	A Crankâ€“Nicolson ADI Galerkinâ€“Legendre spectral method for the two-dimensional Riesz space distributed-order advectionâ€“diffusion equation. Computers and Mathematics With Applications, 2018, 76, 2460-2476.	1.4	60
32	A New Class of Semi-Implicit Methods with Linear Complexity for Nonlinear Fractional Differential Equations. SIAM Journal of Scientific Computing, 2018, 40, A2986-A3011.	1.3	18
33	On the Analysis of Mixed-Index Time Fractional Differential Equation Systems. Axioms, 2018, 7, 25.	0.9	3
34	Three-dimensional virtual reconstruction of timber billets from rotary peeling. Computers and Electronics in Agriculture, 2018, 152, 269-280.	3.7	2
35	Characterization of anomalous relaxation using the time-fractional Bloch equation and multiple echo T₂*-weighted magnetic resonance imaging at 7 T. Magnetic Resonance in Medicine, 2017, 77, 1485-1494.	1.9	28
36	Multi-term time-fractional Bloch equations and application in magnetic resonance imaging. Journal of Computational and Applied Mathematics, 2017, 319, 308-319.	1.1	47

#	Article	IF	Citations
37	A relevant and robust vacuum-drying model applied to hardwoods. Wood Science and Technology, 2017, 51, 701-719.	1.4	13
38	A Novel Unstructured Mesh Finite Element Method for Solving the Time-Space Fractional Wave Equation on a Two-Dimensional Irregular Convex Domain. Fractional Calculus and Applied Analysis, 2017, 20, 352-383.	1.2	65
39	The Meshfree Finite Volume Method with application to multi-phase porous media models. Journal of Computational Physics, 2017, 333, 369-386.	1.9	5
40	Numerical methods and analysis for simulating the flow of a generalized Oldroyd-B fluid between two infinite parallel rigid plates. International Journal of Heat and Mass Transfer, 2017, 115, 1309-1320.	2.5	50
41	Analytical solutions of multi-term time fractional differential equations and application to unsteady flows of generalized viscoelastic fluid. Computers and Mathematics With Applications, 2016, 72, 2084-2097.	1.4	48
42	GPU Accelerated Algorithms for Computing Matrix Function Vector Products with Applications to Exponential Integrators and Fractional Diffusion. SIAM Journal of Scientific Computing, 2016, 38, C127-C149.	1.3	12
43	Spray retention on whole plants: modelling, simulations and experiments. Crop Protection, 2016, 88, 118-130.	1.0	45
44	Characterisation of woodâ€“water relationships and transverse anatomy and their relationship to drying degrade. Wood Science and Technology, 2016, 50, 739-757.	1.4	33
45	Galerkin finite element method and error analysis for the fractional cable equation. Numerical Algorithms, 2016, 72, 447-466.	1.1	49
46	Finite element method for space-time fractional diffusion equation. Numerical Algorithms, 2016, 72, 749-767.	1.1	71
47	Simulating droplet motion on virtual leaf surfaces. Royal Society Open Science, 2015, 2, 140528.	1.1	14
48	A Variable Order Fractional Differential-Based Texture Enhancement Algorithm with Application in Medical Imaging. PLoS ONE, 2015, 10, e0132952.	1.1	31
49	On the Order of the Fractional Laplacian in Determining the Spatio-Temporal Evolution of a Space-Fractional Model of Cardiac Electrophysiology. PLoS ONE, 2015, 10, e0143938.	1.1	33
50	Surface reconstruction of wheat leaf morphology from three-dimensional scanned data. Functional Plant Biology, 2015, 42, 444.	1.1	35
51	Stability and convergence of a new finite volume method for a two-sided space-fractional diffusion equation. Applied Mathematics and Computation, 2015, 257, 52-65.	1.4	74
52	Numerical Algorithms for Time-Fractional Subdiffusion Equation with Second-Order Accuracy. SIAM Journal of Scientific Computing, 2015, 37, A55-A78.	1.3	173
53	A Novel High Order Space-Time Spectral Method for the Time Fractional Fokker--Planck Equation. SIAM Journal of Scientific Computing, 2015, 37, A701-A724.	1.3	150
54	Mathematical modelling of gas production and compositional shift of a CSG (coal seam gas) field: Local model development. Energy, 2015, 88, 621-635.	4.5	10

#	Article	IF	Citations
55	High order unconditionally stable difference schemes for the Riesz space-fractional telegraph equation. Journal of Computational and Applied Mathematics, 2015, 278, 119-129.	1.1	37
56	Numerical treatment of a two-dimensional variable-order fractional nonlinear reaction-diffusion model. , 2014, , .		0
57	Twoâ€scale computational modelling of water flow in unsaturated soils containing irregularâ€shaped inclusions. International Journal for Numerical Methods in Engineering, 2014, 98, 157-173.	1.5	16
58	A Comparison of Techniques for the Reconstruction of Leaf Surfaces from Scanned Data. SIAM Journal of Scientific Computing, 2014, 36, B969-B988.	1.3	14
59	A finite volume scheme with preconditioned Lanczos method for two-dimensional space-fractional reactionâ€“diffusion equations. Applied Mathematical Modelling, 2014, 38, 3755-3762.	2.2	62
60	Towards a model of sprayâ€“canopy interactions: Interception, shatter, bounce and retention of droplets on horizontal leaves. Ecological Modelling, 2014, 290, 94-101.	1.2	71
61	A Crank–Nicolson ADI Spectral Method for a Two-Dimensional Riesz Space Fractional Nonlinear Reaction-Diffusion Equation. SIAM Journal on Numerical Analysis, 2014, 52, 2599-2622.	1.1	298
62	Automatic query expansion: A structural linguistic perspective. Journal of the Association for Information Science and Technology, 2014, 65, 1577-1596.	1.5	4
63	Numerical investigation of three types of space and time fractional Bloch-Torrey equations in 2D. Open Physics, 2013, 11, .	0.8	11
64	Numerical simulation for two-dimensional Riesz space fractional diffusion equations with a nonlinear reaction term. Open Physics, 2013, 11, .	0.8	21
65	Stability and convergence of an implicit numerical method for the space and time fractional Blochâ€“Torrey equation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2013, 371, 20120150.	1.6	33
66	A variable-stepsize Jacobian-free exponential integrator for simulating transport in heterogeneous porous media: Application to wood drying. Journal of Computational Physics, 2013, 233, 66-82.	1.9	21
67	The Use of Finite Difference/Element Approaches for Solving the Time-Fractional Subdiffusion Equation. SIAM Journal of Scientific Computing, 2013, 35, A2976-A3000.	1.3	245
68	A Dual-Scale Modeling Approach for Drying Hygroscopic Porous Media. Multiscale Modeling and Simulation, 2013, 11, 362-384.	0.6	22
69	Long exposure localization in darkness using consumer cameras. , 2013, , .		10
70	A tensor encoding model for semantic processing. , 2012, , .		1
71	Is the unigram relevance model term independent?. , 2012, , .		6
72	Modelling Non-Fickian Behavior in the Cell Walls of Wood Using a Fractional-In-Space Diffusion Equation. Drying Technology, 2011, 29, 1932-1940.	1.7	16

#	Article	IF	Citations
73	Minimising wave drag for free surface flow past a two-dimensional stern. Physics of Fluids, 2011, 23, 072101.	1.6	11
74	Novel Numerical Methods for Solving the Time-Space Fractional Diffusion Equation in Two Dimensions. SIAM Journal of Scientific Computing, 2011, 33, 1159-1180.	1.3	187
75	Fast Bayesian analysis of spatial dynamic factor models for multitemporal remotely sensed imagery. Journal of the Royal Statistical Society Series C: Applied Statistics, 2011, 60, 109-124.	0.5	11
76	A mass-conservative control volume-finite element method for solving Richardsâ€™ equation in heterogeneous porous media. BIT Numerical Mathematics, 2011, 51, 845-864.	1.0	10
77	A New Controlâ€Volume Finiteâ€Element Scheme for Heterogeneous Porous Media: Application to the Drying of Softwood. Chemical Engineering and Technology, 2011, 34, 1143-1150.	0.9	5
78	Modelling water droplet movement on a leaf surface. Mathematics and Computers in Simulation, 2011, 81, 1553-1571.	2.4	28
79	Two New Implicit Numerical Methods for the Fractional Cable Equation. Journal of Computational and Nonlinear Dynamics, 2011, 6, .	0.7	46
80	An experimental and theoretical investigation of the thermal treatment of wood (Fagus sylvatica L.) in the range 200â€“260Â°C. International Journal of Heat and Mass Transfer, 2010, 53, 715-725.	2.5	94
81	Numerical schemes and multivariate extrapolation of a two-dimensional anomalous sub-diffusion equation. Numerical Algorithms, 2010, 54, 1-21.	1.1	79
82	Analytical and numerical solutions of a one-dimensional fractional-in-space diffusion equation in a composite medium. Applied Mathematics and Computation, 2010, 216, 2248-2262.	1.4	18
83	Stability and Convergence of an Effective Numerical Method for the Time-Space Fractional Fokker-Planck Equation with a Nonlinear Source Term. International Journal of Differential Equations, 2010, 2010, 1-22.	0.3	19
84	A restarted Lanczos approximation to functions of a symmetric matrix. IMA Journal of Numerical Analysis, 2010, 30, 1044-1061.	1.5	30
85	Error Bounds for Least Squares Gradient Estimates. SIAM Journal of Scientific Computing, 2010, 32, 2146-2166.	1.3	11
86	Computationally efficient numerical methods for time- and space-fractional Fokkerâ€“Planck equations. Physica Scripta, 2009, T136, 014026.	1.2	15
87	A Three Species Model to Simulate Application of Hyperbaric Oxygen Therapy to Chronic Wounds. PLoS Computational Biology, 2009, 5, e1000451.	1.5	44
88	Computational Approaches to Solving Equations Arising from Wound Healing. Bulletin of Mathematical Biology, 2009, 71, 211-246.	0.9	21
89	Efficient Bayesian estimation of multivariate state space models. Computational Statistics and Data Analysis, 2009, 53, 4116-4125.	0.7	13
90	On derivative estimation and the solution of least squares problems. Journal of Computational and Applied Mathematics, 2008, 222, 511-523.	1.1	7

#	Article	IF	Citations
91	A mesoscopic drying model applied to the growth rings of softwood: mesh generation and simulation results. Maderas: Ciencia Y Tecnologia, 2008, 10, .	0.7	7
92	A Numerical Solution Using an Adaptively Preconditioned Lanczos Method for a Class of Linear Systems Related with the Fractional Poisson Equation. Journal of Applied Mathematics and Stochastic Analysis, 2008, 2008, 1-26.	0.3	17
93	Linear system solution by null-space approximation and projection (SNAP). Numerical Linear Algebra With Applications, 2007, 14, 61-82.	0.9	4
94	A finite volume simulation model for saturatedâ€“unsaturated flow and application to Gooburrum, Bundaberg, Queensland, Australia. Applied Mathematical Modelling, 2006, 30, 352-366.	2.2	10
95	A finite volume method based on radial basis functions for two-dimensional nonlinear diffusion equations. Applied Mathematical Modelling, 2006, 30, 1118-1133.	2.2	27
96	Detailed analysis of a conservative difference approximation for the time fractional diffusion equation. Journal of Applied Mathematics and Computing, 2006, 22, 1-19.	1.2	19
97	A dual-scale model for describing drier and porous medium interactions. AICHE Journal, 2006, 52, 3109-3117.	1.8	11
98	Choix dâ€™un modÃ¨le de pyrolyse mÃ©nagÃ©e du bois Ã lâ€™Ã©chelle de la microparticule en vue de la modÃ©lisation macroscopique. Annals of Forest Science, 2006, 63, 213-229.	0.8	41
99	Krylov subspaces and the analytic grade. Numerical Linear Algebra With Applications, 2005, 12, 55-76.	0.9	8
100	A heterogeneous three-dimensional computational model for wood drying. Applied Mathematical Modelling, 2005, 29, 381-410.	2.2	26
101	AN INVESTIGATION OF THE ACCURACY OF THE CONTROL-VOLUME FINITE-ELEMENT METHOD BASED ON TRIANGULAR PRISMATIC ELEMENTS FOR SIMULATING DIFFUSION IN ANISOTROPIC MEDIA. Numerical Heat Transfer, Part B: Fundamentals, 2004, 46, 243-268.	0.6	14
102	Vacuum drying of wood with radiative heating: I. Experimental procedure. AICHE Journal, 2004, 50, 97-107.	1.8	11
103	Vacuum drying of wood with radiative heating: II. Comparison between theory and experiment. AICHE Journal, 2004, 50, 108-118.	1.8	21
104	Time fractional advection-dispersion equation. Journal of Applied Mathematics and Computing, 2003, 13, 233-245.	1.2	204
105	On the use of surface interpolation techniques in generalised finite volume strategies for simulating transport in highly anisotropic porous media. Journal of Computational and Applied Mathematics, 2003, 152, 199-216.	1.1	10
106	A second order finite volume technique for simulating transport in anisotropic media. International Journal of Numerical Methods for Heat and Fluid Flow, 2003, 13, 31-56.	1.6	35
107	The use of implicit flux limiting schemes in the simulation of the drying process: A new maximum flow sensor applied to phase mobilities. Applied Mathematical Modelling, 2001, 25, 513-540.	2.2	23
108	Determination of the Material Property Variations Across the Growth Ring of Softwood for Use in a Heterogeneous Drying Model Part 1. Capillary Pressure,Tracheid Model and Absolute Permeability. Holzforschung, 2001, 55, 318-323.	0.9	37

#	Article	IF	Citations
109	Determination of the Material Property Variations Across the Growth Ring of Softwood for Use in a Heterogeneous Drying Model. Part 2. Use of Homogenisation to Predict Bound Liquid Diffusivity and Thermal Conductivity. Holzforschung, 2001, 55, 417-425.	0.9	31
110	A 3-D version of TransPore: a comprehensive heat and mass transfer computational model for simulating the drying of porous media. International Journal of Heat and Mass Transfer, 1999, 42, 4501-4521.	2.5	187
111	The use of numerical simulation as a cognitive tool for studying the microwave drying of softwood in an over-sized waveguide. Wood Science and Technology, 1999, 33, 445-464.	1.4	36
112	2-D Solution for drying with internal vaporization of anisotropic media. AICHE Journal, 1999, 45, 13-26.	1.8	10
113	TRANSPORE : A GENERIC HEAT AND MASS TRANSFER COMPUTATIONAL MODEL FOR UNDERSTANDING AND VISUALISING THE DRYING OF POROUS MEDIA. Drying Technology, 1999, 17, 1273-1289.	1.7	49
114	Microwave drying of softwood in an oversized waveguide: Theory and experiment. AICHE Journal, 1997, 43, 2579-2595.	1.8	73
115	A two-dimensional orthotropic model for simulating wood drying processes. Applied Mathematical Modelling, 1996, 20, 60-81.	2.2	47
116	CONTROL VOLUME FINITE ELEMENT MODEL OF MECHANO-SORPTIVE CREEP IN TIMBER. Numerical Heat Transfer; Part A: Applications, 1996, 29, 147-164.	1.2	1
117	A comparison of the finite element and control volume numerical solution techniques applied to timber drying problems below the boiling point. International Journal for Numerical Methods in Engineering, 1995, 38, 451-467.	1.5	18
118	A Study of the Power Density Distribution generated during the Combined Microwave and Convective Drying of Softwood. Drying Technology, 1995, 13, 1411-1430.	1.7	9
119	STUDY OF TWO-DIMENSIONAL CELL-CENTERED AND VERTEX-CENTERED CONTROL-VOLUME SCHEMES APPLIED TO HIGH-TEMPERATURE TIMBER DRYING. Numerical Heat Transfer, Part B: Fundamentals, 1995, 27, 393-415.	0.6	7
120	An investigation on the effect of neglecting compressible work terms in the energy equation when simulating high temperature and pressure drying processes. International Communications in Heat and Mass Transfer, 1994, 21, 661-672.	2.9	3
121	Application of the control volume method to a mathematical model of cell migration. ANZIAM Journal, 0, 45, 891.	0.0	2
122	Implicit difference approximation of the Galilei invariant fractional advection diffusion equation. ANZIAM Journal, 0, 48, 775.	0.0	10
123	Numerical treatment for the fractional Fokker-Planck equation. ANZIAM Journal, 0, 48, 759.	0.0	15
124	Novel numerical methods for time-space fractional reaction diffusion equations in two dimensions. ANZIAM Journal, 0, 52, 395.	0.0	15
125	The computational simulation of brain connectivity using diffusion tensor MRI. ANZIAM Journal, 0, 51, 18.	0.0	1
126	Krylov subspace approximations for the exponential Euler method: error estimates and the harmonic Ritz approximant. ANZIAM Journal, 0, 52, 612.	0.0	6

#	Article	IF	Citations
127	The use of a Riesz fractional differential-based approach for texture enhancement in image processing. ANZIAM Journal, 0, 54, 590.	0.0	36
128	Computational strategies for surface fitting using thin plate spline finite element methods. ANZIAM Journal, 0, 54, 56.	0.0	1