# Timothy J Moroney

List of Publications by Year
in descending order



| 39 | 808 | 471509 17 | 526287 27 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 39 | 39 | 39 | 591 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Stability and convergence of a finite volume method for the space fractional advectionâ€“dispersion equation. Journal of Computational and Applied Mathematics, 2014, 255, 684-697. | 2.0 | 99 |
| 2 | A finite volume scheme with preconditioned Lanczos method for two-dimensional space-fractional reactionâ€“diffusion equations. Applied Mathematical Modelling, 2014, 38, 3755-3762. | 4.2 | 62 |
| 3 | What is the apparent angle of a Kelvin ship wave pattern?. Journal of Fluid Mechanics, 2014, 758, 468-485. | 3.4 | 46 |
| 4 | Numerical investigation of controlling interfacial instabilities in non-standard Hele-Shaw configurations. Journal of Fluid Mechanics, 2019, 877, 1063-1097. | 3.4 | 44 |
| 5 | A finite volume method for two-sided fractional diffusion equations on non-uniform meshes. Journal of Computational Physics, 2017, 335, 747-759. | 3.8 | 41 |
| 6 | Hole-closing model reveals exponents for nonlinear degenerate diffusivity functions in cell biology. Physica D: Nonlinear Phenomena, 2019, 398, 130-140. | 2.8 | 39 |
| 7 | Gravity-driven fingering simulations for a thin liquid film flowing down the outside of a vertical cylinder. Physical Review E, 2013, 87, 053018. | 2.1 | 36 |
| 8 | Asymptotic and Numerical Results for a Model of Solvent-Dependent Drug Diffusion through Polymeric Spheres. SIAM Journal on Applied Mathematics, 2011, 71, 2287-2311. | 1.8 | 33 |
| 9 | The effect of surface tension and kinetic undercooling on a radially-symmetric melting problem. Applied Mathematics and Computation, 2014, 229, 41-52. | 2.2 | 29 |
| 10 | A finite volume method based on radial basis functions for two-dimensional nonlinear diffusion equations. Applied Mathematical Modelling, 2006, 30, 1118-1133. | 4.2 | 27 |
| 11 | Efficient solution of two-sided nonlinear space-fractional diffusion equations using fast Poisson preconditioners. Journal of Computational Physics, 2013, 246, 304-317. | 3.8 | 26 |
| 12 | Spectrograms of ship wakes: identifying linear and nonlinear wave signals. Journal of Fluid Mechanics, 2017, 811, 189-209. | 3.4 | 25 |
| 13 | Including nonequilibrium interface kinetics in a continuum model for melting nanoscaled particles. Scientific Reports, 2014, 4, 7066. | 3.3 | 24 |
| 14 | Time-frequency analysis of ship wave patterns in shallow water: modelling and experiments. Ocean Engineering, 2018, 158, 123-131. | 4.3 | 24 |
| 15 | A banded preconditioner for the two-sided, nonlinear space-fractional diffusion equation. Computers and Mathematics With Applications, 2013, 66, 659-667. | 2.7 | 23 |
| 16 | A three-dimensional finite volume method based on radial basis functions for the accurate computational modelling of nonlinear diffusion equations. Journal of Computational Physics, 2007, 225, 1409-1426. | 3.8 | 21 |
| 17 | Jacobian-free Newtonâ€“Krylov methods with GPU acceleration for computing nonlinear ship wave patterns. Journal of Computational Physics, 2014, 269, 297-313. | 3.8 | 21 |
| 18 | A preconditioned numerical solver for stiff nonlinear reactionâ€“diffusion equations with fractional Laplacians that avoids dense matrices. Journal of Computational Physics, 2015, 287, 254-268. | 3.8 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | A finite volume method for solving the two-sided time-space fractional advection-dispersion equation. Open Physics, 2013, 11, . | 1.7 | 15 |
| 20 | Efficient simulation of unsaturated flow using exponential time integration. Applied Mathematics and Computation, 2011, 217, 6587-6596. | 2.2 | 14 |
| 21 | Simulating droplet motion on virtual leaf surfaces. Royal Society Open Science, 2015, 2, 140528. | 2.4 | 14 |
| 22 | Wake angle for surface gravity waves on a finite depth fluid. Physics of Fluids, 2015, 27, . | 4.0 | 13 |
| 23 | 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. | 2.8 | 12 |
| 24 | Extending fields in a level set method by solving a biharmonic equation. Journal of Computational Physics, 2017, 343, 170-185. | 3.8 | 11 |
| 25 | Three-dimensional free-surface flow over arbitrary bottom topography. Journal of Fluid Mechanics, 2018, 846, 166-189. | 3.4 | 11 |
| 26 | Kelvin wake pattern at small Froude numbers. Journal of Fluid Mechanics, 2021, 915, . | 3.4 | 11 |
| 27 | Saffman-Taylor fingers with kinetic undercooling. Physical Review E, 2015, 91, 023016. | 2.1 | 10 |
| 28 | Mathematical modelling of gas production and compositional shift of a CSG (coal seam gas) field: Local model development. Energy, 2015, 88, 621-635. | 8.8 | 10 |
| 29 | Efficient computation of twoâ€dimensional steady freeâ€surface flows. International Journal for Numerical Methods in Fluids, 2018, 86, 607-624. | 1.6 | 9 |
| 30 | Moving Boundary Problems for Quasi-Steady Conduction Limited Melting. SIAM Journal on Applied Mathematics, 2019, 79, 2107-2131. | 1.8 | 8 |
| 31 | A REVIEW OF ONE-PHASE HELE-SHAW FLOWS AND A LEVEL-SET METHOD FOR NONSTANDARD CONFIGURATIONS. ANZIAM Journal, 2021, 63, 269-307. | 0.2 | 7 |
| 32 | Discrete families of Saffmanâ€“Taylor fingers with exotic shapes. Results in Physics, 2015, 5, 103-104. | 4.1 | 6 |
| 33 | Numerical study of two ill-posed one phase Stefan problems. ANZIAM Journal, 0, 52, 430. | 0.0 | 5 |
| 34 | Implicit reconstructions of thin leaf surfaces from large, noisy point clouds. Applied Mathematical Modelling, 2021, 98, 416-434. | 4.2 | 4 |
| 35 | Drug diffusion from polymeric delivery devices: a problem with two moving boundaries. ANZIAM Journal, 0, 52, 549. | 0.0 | 4 |
| 36 | A review of one-phase Hele-Shaw flows and a level-set method for nonstandard configurations. ANZIAM Journal, 0, 63, 269-307. | 0.0 | 3 |

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|---|---|---|---|
| 37 | Using population of models to investigate and quantify gas production in a spatially heterogeneous coal seam gas field. Applied Mathematical Modelling, 2017, 49, 338-353. | 4.2 | 2 |
| 38 | Spectrogram analysis of surface elevation signals due to accelerating ships. Physical Review Fluids, 2021, 6, . | 2.5 | 2 |
| 39 | Numerical solutions for thin film flow down the outside and inside of a vertical cylinder. ANZIAM Journal, 0, 54, 377. | 0.0 | 1 |