# Yong-Tao Zhang

List of Publications by Year
in descending order



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|---|---|---|---|
| 43 papers | 1,963 citations | 279701 23 h-index | 289141 40 g-index |
| 43 all docs | 43 docs citations | 43 times ranked | 1157 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | A Fixed-Point Fast Sweeping WENO Method with Inverse Lax-Wendroff Boundary Treatment for Steady State of Hyperbolic Conservation Laws. Communications on Applied Mathematics and Computation, 2023, 5, 403-427. | 0.7 | 1 |
| 2 | Preface to the Focused Issue on WENO Schemes. Communications on Applied Mathematics and Computation, 2023, 5, 1-2. | 0.7 | 0 |
| 3 | Fast Sparse Grid Simulations of Fifth Order WENO Scheme for High Dimensional Hyperbolic PDEs. Journal of Scientific Computing, 2021, 87, 1. | 1.1 | 2 |
| 4 | Absolutely convergent fixed-point fast sweeping WENO methods for steady state of hyperbolic conservation laws. Journal of Computational Physics, 2021, 443, 110516. | 1.9 | 9 |
| 5 | A Modified Fifth Order Finite Difference Hermite WENO Scheme for Hyperbolic Conservation Laws. Journal of Scientific Computing, 2020, 85, 1. | 1.1 | 13 |
| 6 | A conservative numerical method for the fractional nonlinear SchrÃ¶dinger equation in two dimensions. Science China Mathematics, 2019, 62, 1997-2014. | 0.8 | 9 |
| 7 | Krylov implicit integration factor discontinuous Galerkin methods on sparse grids for high dimensional reaction-diffusion equations. Journal of Computational Physics, 2019, 388, 90-102. | 1.9 | 6 |
| 8 | Third order WENO scheme on sparse grids for hyperbolic equations. Pure and Applied Mathematics Quarterly, 2018, 14, 57-86. | 0.2 | 4 |
| 9 | Computational Complexity Study on Krylov Integration Factor WENO Method for High Spatial Dimension Convectionâ€“Diffusion Problems. Journal of Scientific Computing, 2017, 73, 980-1027. | 1.1 | 6 |
| 10 | Krylov Integration Factor Method on Sparse Grids for High Spatial Dimension Convectionâ€“Diffusion Equations. Journal of Scientific Computing, 2016, 69, 736-763. | 1.1 | 11 |
| 11 | High Order Fixed-Point Sweeping WENO Methods for Steady State of Hyperbolic Conservation Laws and Its Convergence Study. Communications in Computational Physics, 2016, 20, 835-869. | 0.7 | 22 |
| 12 | Krylov single-step implicit integration factor WENO methods for advectionâ€“diffusionâ€“reaction equations. Journal of Computational Physics, 2016, 311, 22-44. | 1.9 | 19 |
| 13 | A Third Order Fast Sweeping Method with Linear Computational Complexity for Eikonal Equations. Journal of Scientific Computing, 2015, 62, 198-229. | 1.1 | 13 |
| 14 | Cell Biology Modeling Development. , 2015, , 183-189. | | 0 |
| 15 | A homotopy method based on WENO schemes for solving steady state problems of hyperbolic conservation laws. Journal of Computational Physics, 2013, 250, 332-346. | 1.9 | 32 |
| 16 | A Robust Reconstruction for Unstructured WENO Schemes. Journal of Scientific Computing, 2013, 54, 603-621. | 1.1 | 70 |
| 17 | Krylov implicit integration factor WENO methods for semilinear and fully nonlinear advectionâ€“diffusionâ€“reaction equations. Journal of Computational Physics, 2013, 253, 368-388. | 1.9 | 29 |
| 18 | Mathematical modeling of vertebrate limb development. Mathematical Biosciences, 2013, 243, 1-17. | 0.9 | 26 |

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|---|---|---|---|
| 19 | Continuation Along Bifurcation Branches for a Tumor Model with a Necrotic Core. Journal of Scientific Computing, 2012, 53, 395-413. | 1.1 | 33 |
| 20 | Bifurcation for a free boundary problem modeling the growth of a tumor with a necrotic core. Nonlinear Analysis: Real World Applications, 2012, 13, 694-709. | 0.9 | 47 |
| 21 | Uniformly Accurate Discontinuous Galerkin Fast Sweeping Methods for Eikonal Equations. SIAM Journal of Scientific Computing, 2011, 33, 1873-1896. | 1.3 | 28 |
| 22 | Krylov implicit integration factor methods for spatial discretization on high dimensional unstructured meshes: Application to discontinuous Galerkin methods. Journal of Computational Physics, 2011, 230, 4336-4352. | 1.9 | 44 |
| 23 | Operator splitting implicit integration factor methods for stiff reactionâ€“diffusionâ€“advection systems. Journal of Computational Physics, 2011, 230, 5996-6009. | 1.9 | 55 |
| 24 | Multiple stable steady states of a reaction-diffusion model on zebrafish dorsal-ventral patterning. Discrete and Continuous Dynamical Systems - Series S, 2011, 4, 1413-1428. | 0.6 | 7 |
| 25 | Fast Sweeping Fifth Order WENO Scheme for Static Hamilton-Jacobi Equations with Accurate Boundary Treatment. Journal of Scientific Computing, 2010, 45, 514-536. | 1.1 | 40 |
| 26 | Bare Bones Pattern Formation: A Core Regulatory Network in Varying Geometries Reproduces Major Features of Vertebrate Limb Development and Evolution. PLoS ONE, 2010, 5, e10892. | 1.1 | 83 |
| 27 | The mechanism of sound generation in the interaction between a shock wave and two counter-rotating vortices. Physics of Fluids, 2009, 21, 076101. | 1.6 | 18 |
| 28 | Application of Discontinuous Galerkin Methods forÂReaction-Diffusion Systems in Developmental Biology. Journal of Scientific Computing, 2009, 40, 391-418. | 1.1 | 68 |
| 29 | A second order discontinuous Galerkin fast sweeping method for Eikonal equations. Journal of Computational Physics, 2008, 227, 8191-8208. | 1.9 | 47 |
| 30 | The Morphostatic Limit for a Model of Skeletal Pattern Formation in the Vertebrate Limb. Bulletin of Mathematical Biology, 2008, 70, 460-483. | 0.9 | 25 |
| 31 | Compact integration factor methods in high spatial dimensions. Journal of Computational Physics, 2008, 227, 5238-5255. | 1.9 | 66 |
| 32 | Multiscale Models for Vertebrate Limb Development. Current Topics in Developmental Biology, 2008, 81, 311-340. | 1.0 | 43 |
| 33 | A Fast Sweeping Method for Static Convex Hamiltonâ€“Jacobi Equations. Journal of Scientific Computing, 2007, 31, 237-271. | 1.1 | 132 |
| 34 | Computational analysis of BMP gradients in dorsal-ventral patterning of the zebrafish embryo. Journal of Theoretical Biology, 2007, 248, 579-589. | 0.8 | 31 |
| 35 | Numerical methods for stiff reaction-diffusion systems. Discrete and Continuous Dynamical Systems - Series B, 2007, 7, 515-525. | 0.5 | 23 |
| 36 | Efficient semi-implicit schemes for stiff systems. Journal of Computational Physics, 2006, 214, 521-537. | 1.9 | 91 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | High Order Fast Sweeping Methods for Static Hamiltonâ€“Jacobi Equations. Journal of Scientific Computing, 2006, 29, 25-56. | 1.1 | 166 |
| 38 | Effects of shock waves on Rayleigh-Taylor instability. Physics of Plasmas, 2006, 13, 062705. | 0.7 | 15 |
| 39 | Fixed-point Iterative Sweeping Methods for Static Hamilton-Jacobi Equations. Methods and Applications of Analysis, 2006, 13, 299-320. | 0.1 | 13 |
| 40 | Formation of the BMP Activity Gradient in the Drosophila Embryo. Developmental Cell, 2005, 8, 915-924. | 3.1 | 175 |
| 41 | Resolution of high order WENO schemes for complicated flow structures. Journal of Computational Physics, 2003, 186, 690-696. | 1.9 | 236 |
| 42 | High-Order WENO Schemes for Hamilton--Jacobi Equations on Triangular Meshes. SIAM Journal of Scientific Computing, 2003, 24, 1005-1030. | 1.3 | 147 |
| 43 | Numerical viscosity and resolution of high-order weighted essentially nonoscillatory schemes for compressible flows with high Reynolds numbers. Physical Review E, 2003, 68, 046709. | 0.8 | 58 |