

TAO TANG

PUBLICATION LIST

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Books

Numerical Solution of Differential Equations, by Z.-L. Li, Z.-H. Qiao, and T. Tang, Cambridge University Press, 2017

Spectral Methods: Algorithms, Analysis and Applications, by Jie Shen, Tao Tang and Lilian Wang, Springer, 2011 (480 pp.)

Spectral and High-Order Methods with Applications by Jie Shen and Tao Tang, Science Press, 2007 (326 pp.)

Papers

1. Zhaohui Fu, Tao Tang and Jiang Yang Energy diminishing implicit-explicit Runge-Kutta methods for gradient flows, To appear in Mathematics of Computation 2024.
2. Honglin Liao, Tao Tang and Tao Zhou Postive definiteness of real quadratic forms resulting for the variable-step approximations of convolution operators, Sci. China Math. 67, 237-252 (2024).
3. Zhiwei Gao, Tao Tang, Liang Yan and Tao Zhou Failure-Informed Adaptive Sampling for PINNS, Part II: Combining with Re-sampling and Subset Simulation., Commun. Appl. Math. Comput. (2023).
4. Dianming Hou, Zhonghua Qiao and Tao Tang Fast High Order and Energy Dissipative Schemes with Variable Time Steps for Time-Fractional Molecular Beam Epitaxial Growth Model, Ann. Appl. Math, 39 (2023) pp. 429-461.
5. Chaoyu Quan, Tao Tang, Boyi Wang and Jiang Yang A Decreasing Upper Bound of the Energy for Time-Fractional Phase-Field Equations, Communications in Computational Physics. 33 (2023) pp. 962-991.
6. Honglin Liao, Tao Tang and Tao Zhou Discrete energy analysis of the third order variable-step BDF scheme for diffusion equations, J. Comput. Math., 41 (2023), pp.325-344.
7. Tang, T., Wu, X., and Yang, J. Arbitrarily High Order and Fully Discrete Extrapolated Rk-SAV/DG Schemes for Phase-field Gradient Flows, J Sci Comput., 93, 38 (2022).
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14. Hong-lin Liao, Xuehua Song, Tao Tang and Tao Zhou Analysis of the second-order BDF scheme with variable steps for the molecular beam epitaxial model without slope selection, *Sci China Math*, 64 (2021), pp. 887 - 902.
15. Tao Tang, Revisit of Semi-Implicit Schemes for Phase-Field Equations, *Anal. Theory Appl.*, 36(3) (2020), 235-242.
16. Hong-lin Liao, Tao Tang and Tao Zhou, On energy stable, maximum-principle preserving, second order BDF scheme with variable steps for the Allen-Cahn equation, *SIAM J. Numer. Anal.* 58-4 (2020), pp. 2294-2314.
17. Chaoyu Quan, T. Tang and Jang Yang, How to define dissipation-preserving energy for time-fractional phase-field equations. *CSIAM Transactions on Applied Mathematics*, 1 (2020), pp. 478-490.
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