黃杰森教授 (Chieh-Sen Huang) (87 年 8 月畢業，87 年 8 月到校)

(A) 期刊論文

1. *Arbogast, T; Huang, CS; Tian, CY. A finite volume multilevel WENO scheme for multidimensional scalar conservation laws. COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING. 421, 2024. [NSYSU]*

2. *Huang, CS; Arbogast, T; Tian, CY. Multidimensional WENO-AO Reconstructions Using a Simplified Smoothness Indicator and Applications to Conservation Laws. JOURNAL OF SCIENTIFIC COMPUTING. 97(1), 2023. [NSYSU]*

3. *Arbogast, T; Huang, CS; Kuo, MH. RBF WENO Reconstructions with Adaptive Order and Applications to Conservation Laws. JOURNAL OF SCIENTIFIC COMPUTING. 91(2),2022. [SCIE, NSYSU].*

4. *Arbogast, T; Huang, CS. A self-adaptive theta scheme using discontinuity aware quadrature for solving conservation laws. IMA JOURNAL OF NUMERICAL ANALYSIS. 42(4): 3430-3463, 2022. [SCIE, NSYSU].*

5. *Arbogast, T; Huang, CS; Zhao, XK; King, DN. A third order, implicit, finite volume, adaptive Runge-Kutta WENO scheme for advection-diffusion equations. 368, 2020. [SCIE, NSYSU].*

6. *Arbogast, Todd; Huang, Chieh-Sen; Zhao, Xikai. Finite volume WENO schemes for nonlinear parabolic problems with degenerate diffusion on non-uniform meshes. JOURNAL OF COMPUTATIONAL PHYSICS, 399, 2019. [SCIE, NSYSU].*

7. *Huang, Chieh-Sen; Arbogast, Todd. An implicit Eulerian-Lagrangian WENO3 scheme for nonlinear conservation laws. JOURNAL OF SCIENTIFIC COMPUTING, 77(2):1084-1114, 2018. [SCIE, NSYSU].*

8. *Arbogast, Todd; Huang, Chieh-Sen; Zhao, Xikai. Accuracy of WENO and adaptive order WENO reconstructions for solving conservation laws. SIAM JOURNAL ON NUMERICAL ANALYSIS, 56(3):1818-1847, 2018. [SCIE, NSYSU].*

9. *Huang, Chieh-sen; Arbogast, Todd. An Eulerian-Lagrangian weighted essentially nonoscillatory scheme for nonlinear conservation laws. NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, 33(3):651-680, 2017. [SCIE, NSYSU].*

10. *Huang, Chieh-Sen; Arbogast, Todd; Hung, Chen-Hui. A semi-Lagrangian finite difference WENO scheme for scalar nonlinear conservation laws. JOURNAL OF COMPUTATIONAL PHYSICS, 322:559-585, 2016. [SCIE, NSYSU].*

11. *Huang, C-S.; Hung, C. -H.; Wang, S.. Computing eigenmodes of elliptic operators using increasingly flat radial basis functions. ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS,66:12-19, 2016. [SCIE, NSYSU].*

12. *Huang, Chieh-Sen; Xiao, Feng; Arbogast, Todd. Fifth order multi-moment WENO schemes for hyperbolic conservation laws. JOURNAL OF SCIENTIFIC COMPUTING, 64(2):477-507, 2015. [SCIE, NSYSU].*

13. *Chieh-Sen Huang, Todd Arbogast, and Chen-Hui Hung. A re-averaged weno reconstruction and a third order cweno scheme for hyperbolic conservation laws. JOURNAL OF COMPUTATIONAL PHYSICS, 262:291–312, 2014. [SCI,NSYSU].*

14. *C.S. Chen, Chieh-Sen Huang, and K.H. Lin. On the convergence of the MFS-MPS scheme for 1D Poisson's equation. INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, 10(2), 2013. 1341006 [SCI,NSYSU].*

15. *Todd Arbogast, Chieh-Sen Huang, and C.H. Hung. A fully conservative Eulerian-Lagrangian StreamTube method for advection-diffusion problems. SIAM JOURNAL ON SCIENTIFIC COMPUTING, 34(4):B447–B478, 2012. [SCI,NSYSU].*

16. *Chieh-Sen Huang, Todd Arbogast, and J. Qui. An Eulerian-Lagrangian WENO finite volume scheme for advection problems. JOURNAL OF COMPUTATIONAL PHYSICS, 231:4028–4052, 2012. [SCI,NSYSU].*

17. *Todd Arbogast, Chieh-Sen Huang, and T.F. Russell. A locally conservative s treamline method for a model two-phase flow problem in a one-dimensional porous medium. SIAM JOURNAL ON SCIENTIFIC COMPUTING, 34(4):A1950–A1974, 2012. [SCI,NSYSU].*

18. *Chieh-Sen Huang, Y. C. Huang, and P. J. Lai. Modified genetic algorithms for solving fuzzy flow shop scheduling problems and their implementation with CUDA. EXPERT SYSTEMS WITH APPLICATIONS, 39(5):4999– 5005, 2012. [SCI,NSYSU].*

19. *Z.C. Li, H.-T. Hung, Chieh-Sen Huang, T.-T. Lu, and Q. Fang. Effective condition number of finite difference method for poisson's equation involving boundary singularities. NUMERICAL FUNCTIONAL ANALYSIS AND OPTIMIZATION, 32(6):659–681, 2011. [SCI,NSYSU].*

20. *Chieh-Sen Huang H.-D. Yen and A.H.-D. Cheng. On the increasingly flat radial basis function and optimal shape parameter for the solution of elliptic PDEs. ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, 34(9):802–809, 2010. [SCI,NSYSU].*

21. *Todd Arbogast and Chieh-Sen Huang. A fully conservative Eulerian-Lagrangian method for a convection-diffusion problem in a solenoidal field. JOURNAL OF COMPUTATIONAL PHYSICS, 229:3415–3427, 2010. [SCI,NSYSU].*

22. *Chieh-Sen Huang, C. H. Hung, and S. Wang. On convergence of a fitted finite volume method for the valuation of options on assets with stochastic volatilities. IMA JOURNAL OF NUMERICAL ANALYSIS. doi:10.1093/imanum/drp016[SCI,NSYSU].*

23. *S. Wang and Chieh-Sen Huang. A power penalty method for solving a nonlinear parabolic complementarity problem. NONLINEAR ANALYSIS SERIES A: THEORY, METHODS & APPLICATIONS, 69(4):1125–1137, 2008. [SCI,NSYSU].*

24. *Todd Arbogast and Chieh-Sen Huang. Improved accuracy for alternating-direction methods for Parabolic equations based on regular and mixed finite elements. MATHEMATICAL MODELS AND METHODS IN APPLIED SCIENCES, 17:1279–1305, 2007. [SCI,NSYSU].*

25. *C. S. Chen, C. F. Lee, and Chieh-Sen Huang. Error estimate, optimal shape factor, and high precision computation of multiquadric collocation method. ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, 31:614– 623, 2007. [SCI,NSYSU].*

26. *C. S. Chen, Sungwook Lee, and Chieh-Sen Huang. Derivation of particular solutions using Chebyshev polynomial based functions. TO APPEAR IN INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS. [NSYSU].*

27. *Todd Arbogast and Chieh-Sen Huang. A fully mass and volume conserving implementation of a characteristic method for transport problems. SIAM JOURNAL ON SCIENTIFIC COMPUTING, 28(6):2001–2022, 2006. [SCI,NSYSU].*

28. *Chieh-Sen Huang, S. Wang, C. S. Chen, and Z. C. Li. A radial basis collocation method for HamiltonJacobi-Bellman equations. AUTOMATICA, 42:2201–2207, 2006. [SCI,NSYSU].*

29. *Chieh-Sen Huang, C. H. Hung, and S. Wang. A fitted finite volume method for the valuation of options on assets with stochastic volatilities. COMPUTING, 77(3):297–320, 2006. [SCI,NSYSU].*

30. *Zi-Cai Li, Chieh-Sen Huang, and R. C. D. Chen. Interior boundary conditions in the schwarz alternating method for the trefftz method. ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, 29(5):477–493, 2005. [SCIE,NSYSU].*

31. *Chieh-Sen Huang, S. Wang, and K. L. Teo. On application of an alternating direction method to Hamilton-Jacobin-Bellman equations. JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, 166(1):153– 166, 2004. [SCIE,NSYSU].*

32. *Jr Jim Douglas, Chieh-Sen Huang, and Anna M. Spagnuolo. Fractally fractured porous media and nuclear contamination. COMPUTATIONAL AND APPLIED MATHEMATICS, 21:409–428, 2002. [NSYSU].*

33. *Jr Jim Douglas and Chieh-Sen Huang. A locally conservative eulerian-lagrangian finite difference method for a parabolic equation. BIT, 41(3):480–489, 2001. [SCI, NSYSU].*

34. *Chieh-Sen Huang. Convergence analysis of a mass-conserving approximation of immiscible displacement by a modified method of characteristics with adjusted advection. COMPUTATIONAL GEOSCIENCES, 4(2):165– 184, 2000. [SCIE,NSYSU].*

35. *Chieh-Sen Huang, K. L. Teo, and S. Wang. Solving hamilton-jacobi-bellman equations by a modified method of characteristics. NONLINEAR ANALYSIS, 40:279–293, 2000. [SCI, NSYSU].*

36. *Jr., Jim Douglas, Chieh-Sen Huang, and Felipe Pereira. The modified method of characteristics with adjusted advection. NUMERISCHE MATHEMATIK, 83:353–369, 1999. [SCI, NSYSU].*

37. *Jr., Jim Douglas and Chieh-Sen Huang. Accelerated domain decomposition iterative procedures for mixed methods based on Robin transmission conditions. CALCOLO, 35:131–147, 1998. [NSYSU].*

38. *Jr., Jim Douglas and Chieh-Sen Huang. An accelerated domain decomposition procedures based on Robin transmission conditions. BIT, 37:678–686, 1997. [SCI].*