

Publications

Research Books Authored:

- Tai-Ping Liu and Yanni Zeng, *Shock Waves in Conservation Laws with Physical Viscosity*, **Memoirs of the American Mathematical Society**, Volume 234, Number 1105, American Mathematical Society, Providence, RI, 2015, vi+168 pp
- Tai-Ping Liu and Yanni Zeng, *Large Time Behavior of Solutions for General Quasilinear Hyperbolic-Parabolic Systems of Conservation Laws*, **Memoirs of the American Mathematical Society**, Volume 125, Number 599, American Mathematical Society, Providence, RI, 1997, viii+120 pp

Books Edited:

- *Advances in Differential Equations and Mathematical Physics, Proceedings of the 9th International Conference on Differential Equations and Mathematical Physics Held at the University of Alabama, Birmingham, AL, March 26-30, 2002*, Yulia Karpeshina, Gunter Stoltz, Rudi Weikard and Yanni Zeng, Editors, **Contemporary Mathematics**, Volume 327, American Mathematical Society, Providence, RI, 2003, xx+387 pp

Research Articles:

- (1) Jean Rugamba and Yanni Zeng, *Pointwise asymptotic behavior of a chemotaxis model*, **HYP 2018 Proceedings**, AIMS publication, to appear

- (2) Yanni Zeng and Kun Zhao, *Recent results for the logarithmic Keller-Segel-Fisher/KPP system*, **Boletim da Sociedade Paranaense de Matematica**, special issue for ICMS 2018, to appear
- (3) Yanni Zeng, *Hyperbolic-parabolic balance laws: asymptotic behavior and a chemotaxis model*, **Comm. Appl. Anal.**, SEARCDE 2017 Proceedings, to appear
- (4) Yanni Zeng and Kun Zhao, *On the logarithmic Keller-Segel-Fisher/KPP system*, **Discrete Contin. Dyn. Syst.**, Volume 39, Issue 9 (2019), pp 5365-5402
- (5) Jean Rugamba and Yanni, *Greens function of the linearized logarithmic Keller-Segel-Fisher/KPP system*, **Math. Comput. Appl.**, Volume 23, Issue 4 (2018), Paper No. 56, 12 pp
- (6) Yanni Zeng, *Asymptotic behavior of solutions to general hyperbolic-parabolic systems of balance laws in multi-space dimensions*, **Pure Appl. Math. Quart.**, special issue to Prof. Chi-Wang Shu on the occasion of his 60th birthday, Volume 14, Issue 1 (2018), pp 161-192
- (7) Yanni Zeng, *L^p decay for general hyperbolic-parabolic systems of balance laws*, **Discrete Contin. Dyn. Syst.**, Volume 38, Issue 1 (2018), pp 363-396
- (8) Yanni Zeng, *Global existence theory for general hyperbolic-parabolic balance laws with application*, **J. Hyperbolic Differ. Equ.**, Volume 14, Issue 2 (2017), pp 359-391
- (9) Yanni Zeng, *On Cauchy problems of thermal non-equilibrium flows with small data*, **Bull. Braz. Math. Soc. (N.S.)**, Volume 47, Issue 2 (2016), pp 799-809

- (10) Yanni Zeng and Jiao Chen, *Pointwise time asymptotic behavior of solutions to a general class of hyperbolic balance laws*, **J. Differential Equations**, Volume 260, Issue 8 (2016), pp 6745-6786
- (11) Yanni Zeng, *Thermal non-equilibrium flows in three space dimensions*, **Arch. Rational Mech. Anal.**, Volume 219, Number 1 (2016), pp 27-87
- (12) Yanni Zeng, *Global existence theory for a general class of hyperbolic balance laws*, **Bull. Inst. Math. Acad. Sin. (N.S.)**, Volume 10, Number 2 (2015), pp 143-170
- (13) Yanni Zeng, *Large time behavior of solutions to nonlinear viscoelastic model with fading memory*, **Acta Math. Scientia**, Special Issue Dedicated to the Celebration of the 70th Birthday of Constantine M. Dafermos, Volume 32B, Number 1 (2012), pp 219-236
- (14) Tai-Ping Liu and Yanni Zeng, *On nonlinear stability of viscous shock waves with physical viscosity*, in **Hyperbolic Problems: Theory, Numerics and Applications**, Volume 1, T. Li and S. Jiang (Eds.), Beijing, Higher Education Press (2012), pp 60-71
- (15) Tai-Ping Liu, Shih-Hsien Yu and Yanni Zeng, *Viscous conservation laws, part I: scalar laws*, **Bull. Inst. Math. Acad. Sin. (N.S.)**, Volume 5, Number 3 (2010), pp 233-310
- (16) Yanni Zeng, *Gas flows with several thermal nonequilibrium modes*, **Arch. Rational Mech. Anal.**, Volume 196, Number 1 (2010), pp 191-225
- (17) Tai-Ping Liu and Yanni Zeng, *Time-asymptotic behavior of wave propagation around a viscous shock profile*, **Comm. Math. Phys.**,

Volume 290, Number 1 (2009), pp 23-82

- (18) Tai-Ping Liu and Yanni Zeng, *On Green's function for hyperbolic-parabolic systems*, **Acta Math. Scientia**, Special Issue Dedicated to the Celebration of James Glimm's 75th Birthday, Volume 29, Number 6 (2009), pp 1556-1572

- (19) Yanni Zeng, *Gas dynamics in thermal nonequilibrium and general hyperbolic systems with relaxation*, **Arch. Rational Mech. Anal.**, Volume 150, Number 3 (1999), pp 225-279

- (20) Tai-Ping Liu and Yanni Zeng, *Compressible Navier-Stokes equations with zero heat conductivity*, **J. Differential Equations**, Volume 153, Number 2 (1999), pp 225-291

- (21) James Glimm, John W. Grove, Xiao Lin Li, Keh-ming Shyue, Yanni Zeng, and Qiang Zhang, *Three dimensional front tracking*, **SIAM J. Sci. Comput.**, Volume 19, Number 3 (1998), pp 703-727

- (22) Chi-Wang Shu and Yanni Zeng, *High order essentially non-oscillatory scheme for viscoelasticity with fading Memory*, **Quart. Appl. Math.**, Volume 55 (1997), pp 459-484

- (23) Yann Zeng, *L^p asymptotic behavior of solutions to hyperbolic-parabolic systems of conservation laws*, **Arch. Math.**, Volume 66, Number 4 (1996), pp 310-319

- (24) James Glimm, John Grove, Xiao Lin Li, Robin Young, Yanni Zeng and Qiang Zhang, *Front tracking: a parallelized approach for internal boundaries and interfaces*, in **Applied Parallel Computing, Lecture Notes in Computer Science**, Volume 1041, J. Dongarra, K.

Madsen and J. Wasniewski (Eds.), Springer Verlag, Berlin, Heidelberg, New York, (1996), pp 257-266

- (25) Yanni Zeng, *L^1 asymptotic behavior of compressible, isentropic, viscous 1-D flow*, **Comm. Pure Appl. Math.**, Volume 47, Number 8 (1994), pp 1053-1082

- (26) Yanni Zeng, *Convergence to diffusion waves of solutions to nonlinear viscoelastic model with fading memory*, **Comm. Math. Phys.**, Volume 146, Number 3 (1992), pp 585-609

- (27) Yanni Zeng, *Generalized Galerkin methods for hyperbolic conservation laws*, **Numer. Math. J. Chinese Univ.**, Volume 8 (1986), pp 261-273

Thesis:

Yanni Zeng, *Asymptotic Behavior of Nonlinear Viscoelastic Model with Fading Memory and Compressible, Isentropic, Viscous One-Dimensional Flow*, New York University, 1992, 90 pp