

# Curriculum Vitae

## Tong Li

### Personal Information

1. Position: Professor of Mathematics
2. Affiliation: Department of Mathematics, University of Iowa, Iowa City, IA 52242
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### Educational Background

1. Courant Institute, New York University, Mathematics, Ph. D., 1992.
2. Courant Institute, New York University, Mathematics, M. S. , 1990.
3. Peking University, Beijing, China, Mathematics, M. S. 1986.
4. Peking University, Beijing, China, Mathematics, B. A. 1983.

### Academic Experience

1. 2008-current, Professor in Mathematics, University of Iowa.
2. 2000-current, A Faculty Member of Program in Applied Mathematical and Computational Sciences(AMCS), University of Iowa.
3. Iowa Informatics Initiative (UI3) Affiliated faculty, since April 24, 2019.
4. Fall, 2015, Long Term Visitor of the Mathematical Biosciences Institute(MBI), The Ohio State University.
5. Long Term Visitor of the Institute for Pure and Applied Mathematics (IPAM), UCLA, November 15-December 15, 2015.
6. Fall, 2008, Member of IMA, University of Minnesota.
7. Fall, 2008, Member of the Mathematical Biosciences Institute(MBI), OSU.
8. 2002, Spring, Visiting Member of the Institute for Advanced Study, Princeton, NJ.
9. 1999-2008, Associate Professor in Mathematics, University of Iowa.
10. 1993-1999, Assistant Professor in Mathematics, University of Iowa.
11. 1995-1997, Visiting Assistant Professor in Mathematics, UCLA.
12. 1992-1993, Visiting Member of the Institute for Advanced Study, Princeton, NJ.

### Research Interests

Nonlinear Partial Differential Equations, Shock Wave Theory, Detonation Theory, Traffic Flows, Water Waves, Mathematical Biology, Numerical Analysis.

### Selected Publications and Recent Works

1. Tong Li and Jeungeun Park, Traveling waves in a Keller-Segel model with logistic growth, *Communications in Mathematical Sciences*, **20**(2022), 829-853.
2. Tong Li and Nitesh Mathur, Riemann Problem For A Non-Strictly Hyperbolic System In Chemotaxis, *Discrete and Continuous Dynamical Systems Series B*, **27**(2022), 2173-2187.
3. Tong Li and Zhian Wang, Traveling wave solutions to the singular Keller-Segel system with logistic source, *Mathematical Biosciences and Engineering (MBE)*, **19**(2022), 8107-8131.
4. Tong Li, Dehua Wang, Fang Wang, Zhian Wang and Kun Zhao, Large time behavior and diffusion limit for a system of balance laws from chemotaxis in multi-dimensions, *Comm. Math. Sci.*, **19**(2021), 229-272.
5. Tingting Chen, Weifeng Jiang and Tong Li, On the stability of the improved Aw-Rascle-Zhang model with Chaplygin pressure, *Nonlinear Analysis: Real World Applications*, **62**(2021), p. 103351.
6. Yanbo Hu and Tong Li, Sonic-supersonic solutions for the two-dimensional self-similar full Euler equations, *Kinetic & Related Models*, **12**(2019), 1197-1228.
7. Tong Li and Jeungeun Park, Traveling waves in a chemotaxis model with logistic growth, *Discrete and Continuous Dynamical Systems-B*, **24**(2019), 6465-6480. *Comm. Math. Sci.*, **16**(2018), 705-7340
8. Lihui Guo, Tong Li, Lijun Pan and Xinli Han, The Riemann Problem with Delta Initial Data for the One-Dimensional Chaplygin Gas Equations with a Source Term, *Nonlinear Analysis Series B: Real World Applications*, **41**(2018), 588-606.
9. Tong Li and Jeungeun Park, Stability of traveling wave solutions of nonlinear conservation laws for image processing, *Comm. Math. Sci.*, **15**(2017), 1073-1106.
10. Tong Li, Hailiang Liu and Lihe Wang, Oscillatory traveling wave solutions to an attractive chemotaxis system, *JDE*, **261**(2016), 7080-7098.

### Synergistic Activities

1. Associate editor for *Journal of Mathematical Analysis and Applications* 2019-current.
2. Co-organizing an IMA PI conference, 2022 Iowa PDE Conference, October 22, 2022 at the Department of Mathematics, the University of Iowa.
3. Served on Scientific Advising Committee on 7th Midwest Women in Mathematics Symposium, April 13, 2019, University of Iowa.

4. Serving on a task force to develop policy and processes for advancing publicly engaged scholarship and teaching in CLAS, 2018.
5. Member of the Honorary Degree Selection Committee, University of Iowa, 2016-2018.
6. Member of Faculty Senate, UI, 2015-16.
7. Member of the Financial Aid Advisory Charter Committee, 2013-16.
8. Member of the Information Technology Advisory Committee, 2012-2015.
9. Member of Association for Women in Mathematics (AWM).
10. Member of the Council on Teaching, University of Iowa, 2006-2012.
11. Member of the Faculty Assembly, CLAS, UI, 2008-2011.
12. Co-organized a Pre-AMS meeting workshop on PDEs and a Special Session at The AMS 2011 Spring Central Section Meeting at Iowa City, IA, March 17-20, 2011.
13. Co-organized a Minisymposium at the SIAM conference, 2009.
14. Member of Minority Student Recruiting Committee, Department of Mathematics, University of Iowa, 1996-current.
15. Co-organized the Annual Sonia Kovalevsky High School Mathematics Days, University of Iowa, 2007-current.