CURRICULUM VITAE

December 22, 2024

Gui-Qiang G. Chen

Current Positions:

August 2009–Present: Statutory Professor in the Analysis of Partial Differential Equations (PDE Chair) and Professorial Fellow of Keble College, University of Oxford, Oxford, UK

September 2018–Present: Director, Oxford Centre for Nonlinear PDE (OxPDE), University of Oxford, UK

Professional Preparation:

September 1987–August 1989	Courant Institute–NYU (New York)	Postdoc. (Mathematics) Advisor: Peter D. Lax
February 1987	Chinese Academy of Sciences (Beijing)	Ph.D. (Mathematics) Advisor: Xiaqi Ding
June 1982	Fudan University (Shanghai)	B.S. (Mathematics)

Previous and Other Positions:

September 2016 & September–October 2005: Member, Mittag-Leffler Institute of Mathematics, Royal Swedish Academy of Sciences, Sweden

July 2014–Present: Co-Director, Center for Partial Differential Equations; Adjunct Chair Professor of Mathematics, Chinese Academy of Sciences, Beijing, China

April 2014–June 2023: Director, EPSRC Centre for Doctoral Training in PDE, University of Oxford, UK

January–July 2014 & March–May 2003: Member, Newton Institute for Mathematical Sciences, Cambridge, UK

January–May 2011 & October 1990–May 1991: Member, Mathematical Sciences Research Institute (MSRI), University of California at Berkeley, USA

September 1996–Present: Full Professor of Mathematics, (1996–2010) and Adjunct Professor (2010–Present), Northwestern University, Evanston, USA

August 2008–June 2009: Senior Fellow, Centre for Advanced Study, Norwegian Academy of Science and Letters

April 2008: Visiting Professor, MATCH (Mathematics Center Heidelberg) and Graduate School of Mathematical and Computational Methods for the Sciences, University of Heidelberg, Germany

March 2004–February 2008: Changjiang Distinguished Visiting Professor, Fudan University, China

March–April 2001: Senior Fellow, Institute for Pure and Applied Mathematics (IPAM), University of California at Los Angeles, California, USA

December 1996: Visiting Professor, Department of Mathematics, University of Nice, France

September 1994–August 1996: Associate Professor of Mathematics, Northwestern University, Evanston, USA

January 1994–March 1994: Member, Institute for Advanced Study, Princeton, New Jersey, USA

September 1989–August 1999: Assistant Professor of Mathematics (1989–94) and Adjunct Professor (1994–99), University of Chicago, USA

March 1989–June 1989: Member, Institute for Mathematics and Its Applications, University of Minnesota, USA

March 1987–Aug. 1989: Assistant Professor, AMSS, Chinese Academy of Sciences, Beijing, China

Research Interests:

Chen's main research areas lie in nonlinear partial differential equations, nonlinear analysis, and their applications to other areas of Mathematics and Science. His recent research interests include nonlinear hyperbolic systems of conservation laws, nonlinear waves, nonlinear equations of mixed type, free boundary problems, geometric problems, and stochastic partial differential equations. His research interests also include measure-theoretical analysis, weak convergence methods, entropy analysis, statistical physics, and numerical analysis.

Honours, Awards, and Fellowships:

The 2024 Pólya Prize, London Mathematical Society, London (UK), June 2024.

Doctor of Science (DSc) (Higher Doctorate Degree), University of Oxford, UK, July 2024.

Member of the Academia Europaea (The Academy of Europe) (MAE; elected), London (UK), June 2022.

Member of the European Academy of Sciences (EurASC Fellow; elected), Brussels (Belgium), July 2020.

Fellow of the American Mathematical Society (AMS Fellow; elected), USA, January 2017.

Fellow of the Institute of Mathematics and its Applications (FIMA; elected), UK, January 2014.

Turner-Kirk Fellow, Isaac Newton Institute for Mathematical Sciences, Cambridge, 2013–14.

Fellow of the Society for Industrial and Applied Mathematics (SIAM Fellow; elected), USA, March 2013.

Advisory Professorship, Shanghai Jiao Tong University, PRC, 2012–Present.

The SIAG/Analysis of Partial Differential Equations Prize, Society for Industrial and Applied Mathematics (SIAM), USA, November 2011.

Royal Society-Wolfson Research Merit Award, UK, 2009.

Alexander von Humboldt Foundation Fellow, Germany, 2003–07.

Changjiang Distinguished Professor, Fudan University and Ministry of Education (China), 2004–08.

Alfred P. Sloan Foundation Fellow, USA, 1991–97.

Chinese National Prize of Sciences, PRC, 1990.

Chinese Academy of Sciences Award in Mathematics, PRC, 1989.

Argonne-University of Chicago Fellow in Mathematics, USA, 1989–91.

Best Paper Award, Beijing Mathematical Society, PRC, 1988.

Advisory Board/Editor-in-Chief/Editor/Associate Editor for Scientific Journals:

Core Publications: London Mathematical Society (Editorial Advisory Board), 2020–Present

Journal of Mathematical Physics (Editorial Advisory Board): 2017–Present

Communications in Mathematical Analysis & Applications (Editor-in-Chief), Global Science Press: 2022–Present

Acta Mathematica Scientia (Editor-in-Chief), Springer: 2014–Present (Editor: 1996–2013)

SIAG/APDE Liaison, SIAM News, January 2019–Present

Science China Mathematics (Associate Editor-in-Chief), Springer: 2023–Present (Editor: 2018–22)

SIAM Journal of Mathematical Analysis: 2000-10; 2023–Present

Networks and Heterogeneous Media (NHM): 2017–Present

Interfaces and Free Boundaries, European Mathematical Society: 2013–Present

Journal of Mathematical Fluid Mechanics, Springer (Birkhäuser): 2013–Present

Differential and Integral Equations: 2008–Present

Acta Mathematicae Applicatae Sinica: 2001–Present

Journal of Partial Differential Equations: 2001–Present

Chinese Annals of Mathematics: 1998–Present

Zeitschrift für Angewandte Mathematik und Physik (ZAMP): 1991–Present

Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences: 2011–17

Nonlinear Analysis: Theory, Methods & Applications: 2011–13

Journal of Hyperbolic Differential Equations: 2003–10

Communications on Pure and Applied Analysis: 2001–12

National and International Committee (selection):

Member: Scientific Committee, 19th & 18th &17th & 16th International Conference on Hyperbolic Problems: Theory, Numerics and Application, Shanghai, China, July 1–5, 2024 & Malaga, Spain, July 2, 2021 & June 20–24, 2022; State College, USA, June 25–29, 2018; Aachen, Germany, August 1–15, 2016.

Member: Organising Committee, SIAM PDE Webinar Series, Society for Industrial and Applied Mathematics, USA, 2020–23

Member: International Scientific Board, RUDN University, Moscow, Russia, 2018–Present

Member: Advisory Board, Maxwell Institute Graduate School in Analysis & its Applications (MIGSAA), Edinburgh, UK, December 2014–22

Member: Scientific Committee, 15th & 14th International Conference on Free Boundary Problems: Theory and Application, Berlin, Germany, September 13–17, 2021; Shanghai, China, July 9–14, 2017

Member: SIAM Major Awards Committee, Society for Industrial and Applied Mathematics, USA, 2017–19

Member: Newton International Fellowships Board, British Academy & Royal Society, UK, 2013–18

Chair: Scientific Committee, International Conference on Mathematics and Science: In honour of Sir John Ball, Oxford, May 17–19, 2018

Co-Convener: International Evaluation Board for the CAS Center of Excellence in Mathematical Sciences, Chinese Academy of Sciences, 2017

Member: Hiring Selection Board, University of Oslo, Norway, 2016

Member: Promotion Committee, AMSS, Chinese Academy of Sciences, China, 2016

Member: Advisory Board, Shanghai Center for Mathematical Sciences, China, 2015–Present

Panellist: UK Engineering and Physical Sciences Research Council, UK, 2015–23

Co-Chair: Organizing Committee, 13th International Conference on Free Boundary Problems: Theory and Application, Cambridge, UK, June 23–27, 2014

Co-Chair: Organizing Committee, Newton Institute Programme on Free Boundary Problems, Cambridge, UK, January–July 2014

Chair: Organizing Committee, International Conference on PDEs, Oxford, UK, September 10–13, 2012

Member: SFB Special Research Program Panel, Austrian Science Fund (FWF), Austria, July 2012

Chair: SIAM Activity Group on Analysis of Partial Differential Equations, SIAM, USA, 2009–10

Member: AMS Program Committee for the Annual Meeting in Washington, D.C., January 5–8, 2009

Member: American Mathematical Society Scientific Committee for the Joint International Meeting with Shanghai Mathematical Society, December 17–21, 2008

Member: AMS-MAA Program Committee for Joint Annual National Meetings, San Diego, January 6–9, 2008

Member: Committee for National Meetings, American Mathematical Society, 2007–10

Co-Chair: Organizing Committee, SIAM Conference on Analysis of PDEs, Boston, USA, July 9–12, 2006

Program Director: Activity Group on Analysis of PDEs, SIAM, USA, 2005–06

Member: Research Council of Norway, 2005–09

Panellist: National Science Foundation, USA, 1999–2012

Membership:

Academia Europaea, European Academy of Sciences, European Mathematical Society, London Mathematical Society, Institute of Mathematics and Its Applications (UK), American Mathematical Society, Society for Industrial and Applied Mathematics (USA)

Professional Service as an Organiser:

Chair/Organiser/Co-organiser, or Chair/Member of the Scientific Committees, of more than **200** International Conferences, Workshops, Symposia, Summer Schools, and Emphasis Years in more than **15** countries.

Postdoctoral Fellows:

Hermano Frid (1994–96), Mikhail Feldman (1997–99), Konstantina Trivisa (1997–2000), Yachun Li (2000), Monica Torres (2002–05), Kyungwoo Song (2002–05), Paschalis Karageorgis (2004–05), Cleopatra Christoforou (2004–07), Laura Spinolo (2006–08), Carlotta Donadello (2008–10), Myoungjean Bae (2009–11), Meng Xu (2008–09), Weiwei Han (2011–12), Wladimir Neves (2011–12), Hairong Yuan (2011–12), Gilong Gu (2011–12), Laura Caravenna (2011–14), Beixiang Feng (2012–13), Wei Xiang (2012–14), Po Lam Yung (2013–14), Jie Kuang (2015–17), Shengguo Zhu (2018–20), Benjamin Fehrman (2018–21), Jan Sbierski (2018–23), Qin Wang (2019–20), Tao Wang (2019–20), Kaibo Hu (2021-23), Gaowei Cao (2022–23), Immanuel Ben-Porath (2022–24), Difan Yuan (2022–25), Hyangdong Park (2024–25).

Ph.D Students:

Dehua Wang 1996, Milan Kratka 1998, Bo Su 1999, Tianhong Li 2003, Mikhail Perepelitsa 2004, Jun Chen 2005, Dianwei Zhu 2005, Nadine Even 2009, Shu Gao 2010, Qian Ding 2011, Vaibhav Kukreja 2011, Xuemei Deng 2011, Wei Xiang 2012, Min Ding 2013, Changguo Xiao 2013, Tianyi Wang 2014, Ben Stevens 2014, Tao Wang 2015, Ho Cheung (Peter) Pang 2017, Stefano Marchesani 2017, Siran Li 2017, Matthew Schrecker 2018, Guangyu Xi 2018, Matthew Rigby 2019, Peyi Sun 2019, Simon Schulz 2019, Nikolaos Athanasiou 2020, Francis Hounkpe 2021, Tristan Giron 2021, Yucong Huang 2022, Song Liu 2022, Tianrui Bayles-Rea 2022, Yun Pu 2023, Alexander James Cliff 2023, Chin Ching Yeung 2023, Danli Wang 2025 (TBC), Yifan Jiang 2025 (TBC).

Current:

Samuel Richard Charles, Shuchen Guo, Isaac Wind Newell, Olav Halland, Sameh Hameedi, Ziyang Zheng

Invited Lectures:

Since 2000, more than **300** invited lectures have been delivered at various International Conferences, Symposia, Workshops, Colloquia, Seminars, and Summer Schools around the world, including the countries such as Australia, Brazil, Bulgaria, Canada, China, Czech Republic, France, Germany, Italy, Israel, Japan, Norway, Poland, Portugal, Russia, Saudi Arabia, Slovakia, South Korea, Spain, Sweden, and USA, besides the UK.

List of Books:

[1] Prandtl-Meyer Reflection Configurations, Transonic Shocks, and Free Boundary Problems, 237 pages, Research Monograph (Original Research), Memoirs of the American Mathematical Society, 301, no. 1507, AMS: Providence, 2024. (with Myoungjean Bae and Mikhail Feldman).

[2] Mathematics of Shock Reflection-Diffraction and von Neumann's Conjectures, 832 pages, Research Monograph (original Research), Princeton Mathematics Series in Annals of Mathematics Studies, 197, Princeton University Press, 2018 (with Mikhail Feldman).

[3] Differential Geometry and Continuum Mechanics, Springer: Berlin-Heidelberg, 2014 (Edited with Michael Grinfeld and Robin J. Knops).

[4] Free Boundary Problems and Related Topics, Theme Issue, Philosophical Transactions of the Royal Society A: Physical, Mathematical and Engineering Sciences, The Royal Society, September 2015 (Edited with Henrik Shahgholian and Juan-Luis Vazquez).

[5] Entropy and Convexity for Nonlinear Partial Differential Equations, Theme Issue, Philosophical Transactions of the Royal Society A: Physical, Mathematical and Engineering Sciences, The Royal Society, November 2014 (Edited with John M. Ball).

[6] Hyperbolic Conservation Laws and Related Analysis with Applications, Springer-Verlag: Berlin-Heidelberg, 2013 (Edited with Helge Holden and Kenneth Karlsen).

[7] Nonlinear Conservation Laws and Applications, IMA Volume in Mathematics and Its Applications 153, Springer-Verlag, 2011 (Edited with Alberto Bressan, Marta Lewicka and Dehua Wang).

[8] Nonlinear Conservation Laws, Fluid Systems and Related Topics, Higher Education Press and World Scientific: Beijing and Singapore, 2009 (Edited with Tatsien Li and Chun Liu).

[9] Stochastic Analysis and Partial Differential Equations, Contemporary Mathematics, 429, AMS: Providence, 2007 (Edited with Elton Hsu and Mark Pinsky).

[10] Nonlinear Partial Differential Equations and Related Analysis. Contemporary Mathematics, 371, AMS: Providence, 2005 (Edited with George Gasper and Joseph Jerome).

[11] Nonlinear Partial Differential Equations. Contemporary Mathematics, 238, AMS: Providence, 1999 (Edited with Emmanuele DiBenedetto).

[12] Advances in Nonlinear Partial Differential Equations and Related Areas, World Scientific Publishing Co Pte Ltd, 1998 (Edited with Yanyan Li, Xiping Zhu and Daomin Cao).

Research Papers:

More than **200** original research papers have been published by international leading scientific journals/publishers. In particular, they include the following publications:

[1] Global Solutions to Shock Reflection by a Large-Angle Wedges for Potential Flow, *Annals of Mathematics*, 171, 1019–1134 (**2010**); Potential Theory for Shock Reflection by a Large-Angle Wedge, *Proc. National Acad. Sci. USA (PNAS)*, 102, 15368–15372 (**2005**) (with M. Feldman). Regularity of Solutions to Regular Shock Reflection for Potential Flow, *Invent. Math.* 175, 505–543 (**2009**) (with M.-J. Bae and M. Feldman). Mathematics of Shock Reflection-Diffraction and von Neumann's Conjectures, 832 pages, Research Monograph, Princeton Mathematics Series in Annals of Mathematics Studies, 197, Princeton University Press, **2018** (with M. Feldman). Convexity of Self-Similar Transonic Shocks and Free Boundaries for the Euler Equations for Potential Flow, *Arch. Ration. Mech. Anal.* 238, 47–124 (**2020**) (with M. Feldman and W. Xiang). Prandtl-Meyer Reflection Configurations, Transonic Shocks, and Free Boundary Problems, 237 pages, Research Monograph,Memoirs of the American Mathematical Society, 301, no. 1507, AMS: Providence, **2024** (with M.-J. Bae and M. Feldman).

[2] Vanishing Viscosity Limit of the Navier-Stokes Equations to the Euler Equations, *Comm. Pure Appl. Math.* 63, 1469–1504 (**2010**); Vanishing Viscosity Solutions of the Compressible Euler Equations with Spherical Symmetry and Large Initial Data, *Commun. Math. Phys.* 338, 771–800 (**2015**) (with M. Perepelitsa). Vanishing Viscosity Approach to the Compressible Euler Equations for Transonic Nozzle and Spherically Symmetric Flows, *Arch. Ration. Mech. Anal.* 229, 1239–1279 (**2018**) (with M. Schrecker). Global Solutions of the Compressible Euler Equations with Large Initial Data of Spherical Symmetry and Positive Far-Field Density, *Arch. Ration. Mech. Anal.* 243, 1699–1771 (**2022**) (with Y. Wang). Global Solutions of the Compressible Euler-Poisson Equations with Large Initial Data of Spherical Symmetry, *Comm. Pure Appl. Math.* 77, 2947–3025 (**2024**) (with L. He, Y. Wang, and D. Yuan). Global Finite-Energy Solutions of the Compressible Euler-Poisson Equations for General Pressure Laws with Large Initial Data of Spherical Symmetry, *Comm. Math. Phys.* 405, no. 3, Paper No. 77, 85 pp. (**2024**) (with F. Huang, T. Li, W. Wang, and Y. Wang).

[3] Weak Continuity of the Gauss-Codazzi-Ricci Equations for Isometric Embedding, *Proc. Amer. Math. Soc.* 138, 1843–1852 (**2009**); Isometric Immersion and Compensated Compactness, *Commun. Math. Phys.* 294, 411–437 (**2010**) (with M. Slemrod and D. Wang). Fluids, Elasticity, Geometry, and the Existence of Wrinkled

Solutions, *Arch. Ration. Mech. Anal.* 226, 1009–1060 (**2017**) (with A. Acharya, S. Li, M. Slemrod, and D. Wang). Global Weak Rigidity of the Gauss-Codazzi-Ricci Equations and Isometric Immersions of Riemannian Manifolds with Lower Regularity, *J. Geometric Anal.* 28(3), 1239–1279 (**2018**); Weak Continuity of the Cartan Structural System and Compensated Compactness on Semi-Riemannian Manifolds with Lower Regularity, *Arch. Ration. Mech. Anal.* 241, 579–641 (**2021**) (with S. Li). On Asymptotic Rigidity and Continuity Problems in Nonlinear Elasticity on Manifolds and Hypersurfaces, *J. Math. Pures Appl.* 160, 29–53 (**2022**) (with M. Slemrod and S. Li).

[4] Large Time Behavior of Periodic Solutions to Anisotropic Degenerate Parabolic-Hyperbolic Equations, *Proc. Amer. Math. Soc.* 137, 3003–3011 (**2009**); Well-Posedness for Anisotropic Degenerate Parabolic-Hyperbolic Equations, *Ann. l'Institut Henri Poincaré: Anal. Non linéaire*, 20, 645–668 (**2003**); What Is a Kinetic Solution for Degenerate Parabolic-Hyperbolic Equations? *Notices Amer. Math. Soc.*, June/July Issue, 737–739 (**2010**) (with B. Perthame). Nonlinear Anisotropic Degenerate Parabolic-Hyperbolic Equations with Stochastic Forcing, *J. Functional Analysis*, 281 (12), 109222 (**2021**) (with P. H. Pang).

[5] Divergence Measure Fields and Hyperbolic Conservation Laws, *Arch. Ration. Mech. Anal.* 147, 89–118 (**1999**); Extended Divergence-Measure Fields and the Euler Equations of Gas Dynamics, *Commun. Math. Phys.* 236, 251–280 (**2003**)(with H. Frid). Divergence-Measure Fields, Sets of Finite Perimeter, and Conservation Laws, *Arch. Ration. Mech. Anal.* 175, 245–267 (**2005**) (with M. Torres). Gauss-Green Theorem for Weakly Differentiable Fields, Sets of Finite Perimeter, and Balance Laws, *Comm. Pure Appl. Math.* 62, 242–304 (**2009**) (with M. Torres and W. P. Ziemer). Cauchy Fluxes and Gauss-Green Formulas for Divergence-Measure Fields over General Open Sets. *Arch. Ration. Mech. Anal.* 233, 87–166 (**2019**) (with G. E. Comi and M. Torres). Divergence-Measure Fields: Gauss-Green Formulas and Normal Traces, *Notices Amer. Math. Soc.* 68 (8), 1282–1290 (**2021**) (with M. Torres).

[6] Existence and Stability of Supersonic Euler Flows past Lipschitz Wedges, *Arch. Ration. Mech. Anal.* 181, 261–310 (**2006**); Existence and Stability of Supersonic Vortex Sheets in Euler Flows past Lipschitz Walls, *SIAM J. Math. Anal.* 38, 1660–1693 (**2007**) (with Y. Zhang and D. Zhu). Well-Posedness for Two-Dimensional Steady Supersonic Euler Flows past a Lipschitz Wedge, *J. Diff. Eqs.* 244, 1521–1550 (**2008**) (with T.-H. Li). Steady Euler Flows with Large Vorticity and Characteristic Discontinuities in Arbitrary Infinitely Long Nozzles, *Adv. Math.* 346, 946–1008 (**2019**) (with F. Huang, T.-Y, Wang, and W. Xiang). Stability of Conical Shocks in the Three-Dimensional Steady Supersonic Isothermal Flows Past Lipschitz Perturbed Cones, *SIAM J. Math. Anal.* 53 (3), 2811–2862 (**2021**) (with J. Kuang and Y. Zhang). L^1-Stability of Vortex Sheets and Entropy Waves in Steady Supersonic Euler Flows over Lipschitz Walls, *Discrete Contin. Dyn. Syst.* 43, 1239–1268 (**2023**) (with V. Kukreja).

[7] Existence Theory for the Isentropic Euler Equations, *Arch. Ration. Mech. Anal.* 166, 81–98 (**2003**); Compressible Euler Equations with General Pressure Law, *Arch. Ration. Mech. Anal.* 153, 221–259 (**2000**) (with Ph. LeFloch). Global Entropy Solutions and Newtonian Limit for the Relativistic Euler Equations, *Annals of PDE*, 8, Ann. PDE, 8, no. 1, Paper No. 10, 53 pp. (**2022**) (with M. Schrecker). Isothermal Limit of Entropy Solutions of the Euler Equations for Isentropic Gas Dynamics, *SIAM J. Math. Anal.* 56 (2024), no. 1, 1300–1320 (**2024**) (with F. Huang and T.-Y. Wang).

[8] Multidimensional Transonic Shocks and Free Boundary Problems for Nonlinear Equations of Mixed Type, *Journal of American Mathematical Society*, 16, 461–494 (**2003**) (with M. Feldman). Stability of Transonic Shock-Fronts in Steady Potential Flow past a Perturbed Cone, *Discrete Conti. Dynamical Systems*, 23, 85–114 (**2009**); Stability of Transonic Shocks in Steady Supersonic Flow past Multidimensional Wedges, *Adv. Math.* 314, 493–539 (**2017**) (with B. Fang). Stability and Asymptotic Behavior of Transonic Flows Past Wedges for the Full Euler Equations, *Interfaces and Free Boundaries*, 19, 591–626 (**2017**) (with J. Chen and M. Feldman). Stability of Attached Transonic Shocks in Steady Potential Flow past Three-Dimensional Wedges, *Commun. Math. Phys.* 387 (1), 111–138 (**2021**) (with J. Chen and W. Xiang). Multidimensional Transonic Shock Waves and Free Boundary Problems, *Bulletin of Mathematical Sciences*, 12(1), 223002 (**2022**) (with M. Feldman).

[9] Existence and Stability of Compressible Current-Vortex Sheets in Three-Dimensional Magnetohydrodynamics, *Arch. Ration. Mech. Anal.* 187, 369–408 (**2007**); Characteristic Discontinuities and Free Boundary Problems for Hyperbolic Conservation Laws, In: Nonlinear Partial Differential Equations, The Abel Symposium 2010, Chapter 5, pp. 53–82, H. Holden and K. H. Karlsen (Eds.), Springer, **2012** (with Y.-G. Wang). Nonlinear Stability of Relativistic Vortex Sheets in Three-Dimensional Minkowski Spacetime, *Arch. Ration. Mech. Anal.* 232, 591–695 (**2019**); Stability of Multidimensional Thermoelastic Contact Discontinuities, *Arch. Ration. Mech. Anal.* 237 (**2020**), 1271–1323 (with P. Secchi and T. Wang).

[10] Hyperbolic Conservation Laws with Stiff Relaxation Terms and Entropy, *Comm. Pure Appl. Math.* 47, 787–830 (**1994**) (with D. Levermore and T.-P. Liu). Zero Relaxation and Dissipation Limits for Hyperbolic Conservation Laws, *Comm. Pure Appl. Math.* 46, 755–781 (**1993**) (with T.-P. Liu).

[11] Convergence of the Lax-Friedrichs Scheme for Isentropic Gas Dynamics (III), *Acta Mathematica Scientia*, 6, 75–120 (**1986**) (in English), 8, 243–276 (**1988**) (in Chinese). Convergence of the Lax-Friedrichs Scheme for Isentropic Gas Dynamics (I)-(II), *Acta Math. Sci.*, 5, 415–432 (**1985**) (in English), 7, 467–480 (**1987**) (in Chinese); 5, 433–472 (**1985**) (in English); 8, 61–94 (**1988**) (in Chinese) (with X. Ding and P. Luo).