# List of presentations by Renjun Duan

## Invited talks in conferences and workshops

- 1. Workshop on the Recent Progress of Kinetic Theory and Related Topics, Jan. 15-19, 2024, Tsinghua Sanya International Mathematics Forum (TSIMF), Sanya, China.
- 2. ICCM 2023 (45 minutes' talk), Jan. 2-5, 2024, Shanghai, China.
- 3. Workshop on Recent Advances in Kinetic Theory and Related Models, December 4-8, 2023, Beijing International Center for Mathematical Research, Peking University, China.
- 4. Workshop on Mathematical Theory of Fluid Dynamics and Applications, November 10-12, 2023, Beijing University of Technology, China.
- 2023 HK-SZ Conference on Theory of PDEs, October 27-29, 2023, School of Mathematical Sciences, Shenzhen University, China.
- Workshop on Mathematical Theories of Boundary Layers and Related Topics, October 19-22, 2023, Shanghai Jiao Tong University, China.
- Minisymposia (00215): Mathematical Advances in the nonlinear PDEs from physics, 10th International Congress on Industrial and Applied Mathematics, Tokyo, August 20-25, 2023, Japan.
- 8. Partial Differential Equations in Fluid Dynamics (23w5066), August 6-11, 2023, Institute for Advanced Study in Mathematics, Hangzhou, China.
- 9. Workshop on Theory and Application of PDEs, July 7-9, 2023, Guangdong-Hong Kong-Macau Center for Applied Mathematics and Jishou University, China.
- 10. Modeling and Theory in PDEs, May 27 28, 2023, Xiamen University, China.
- 11. The 7th International Conference on Scientific Computing and Partial Differential Equations (SCPDE23), May 22-26, 2023, Hong Kong Polytechnic University, Hong Kong.
- 12. Advances in Kinetic and Related Models, Dec. 17-18, 2022, Huazhong University of Science and Technology, China.
- 13. Workshop on PDE Theory and its Applications, Dec. 10-12, 2022, Central China Normal University, China.
- 14. Online BIRS-CMO Workshop "Kinetic Equations: Recent Developments and Novel Applications", Oct. 30 Nov. 4, 2022, Mexico.

- 15. 2022 Workshop on PDEs (online), Oct. 29-30, 2022, Guangxi University, China.
- 16. Conferences on PDEs, May 8, 2022, Southwest Jiaotong University, China.
- 17. Asia-Pacific Analysis and PDE Seminar, Mar. 28, 2022.
- 18. New advances in PDEs, Jan. 14-17, 2022, organized by Nantong University and Nanjing University, China.
- 19. FKTW02 Frontiers in analysis of kinetic equations, Jan. 10-14, 2022, Isaac Newton Institute for Mathematical Sciences, University of Cambridge, UK.
- 20. 2021 PDE Workshop, Nov. 12-15, 2021, Xiamen University, China.
- 21. International conference on nonlinear PDE theory and applications, Oct. 27-31, 2021, Shanghai Jiao Tong University, China.
- 22. Workshop on Nonlinear PDEs in Fluid Mechanics and Advances in Relative Fields, Oct. 15-18, 2021, Zhejiang Normal University, China.
- 23. Webinar Kinetic and fluid equations for collective behavior, Oct. 15, 2021, French-Korean IRL in Mathematics, International Research Laboratory.
- 24. International Workshop on Recent Advances in Nonlinear PDE, Jun. 18-22, 2021, Nanjing University of Aeronautics and Astronautics, China.
- 25. The 1st Online Workshop for Nonlinear Partial Differential Equations, Feb. 22, 2021, organized by Tokyo Institute of Technology and Kobe University, Japan.
- 26. Online Workshop on Kinetic Models: Theory and Analysis (3), Feb. 3, 2021, organized by Shanghai Jiao Tong University and Tsinghua University, China.
- 27. Online Workshop on Mathematical Theory in Fluid Dynamics: Compressible Flow, Jan. 16-23, 2021, Dalian University of Technology, China.
- 28. (Online talk) International Conference on Mixed-type Partial Differential Equations and Optimal Transport Theory, Dec. 27-29, 2020, Capital Normal University, China.
- 29. (Online talk) Nonlinear Evolutionary Partial Differential Equations: Theories and Applications (NEPDE 2020), Dec. 1-4, 2020, Shanghai Jiao Tong University, China.
- 30. The 37th Kyushu Symposium on Partial Differential Equations, Jan. 27-29, 2020, Fukuoka, Japan. (*Trip cancelled*)
- 31. International Conference on PDEs in Fluids, Nov. 7-11, 2019, CAMIS, South China Normal University, Guangzhou, China.

- 32. Advances in Kinetic Theory, Oct. 14-18, 2019, Chongqing University, Chongqing, China.
- 33. PDE Workshop, Oct. 11-13, 2019, Nanjing University of Aeronautics and Astronautics, Nanjing, China.
- 34. Analysis and PDE, Oct. 7-9, 2019, Leibniz Universität Hannover, Hannover, Germany.
- 35. Recent Advances in Nonlocal Kinetic, Fluid and Diffusive PDEs, Aug. 19-23, 2019, Jeju, Korea.
- 36. 2019 TIANFU International Conference on PDEs, Jul. 8-10, 2019, Southwestern University of Finance and Economics, Chengdu, China.
- 37. International Conference on Modeling, Computations, Theoretical Analysis on Fluid Dynamics and Related Problems, Jun. 28-30, 2019, Northwest University, Xi'an, China.
- 38. The 8th International Congress of Chinese Mathematicians of 2019, 45-Minute Lecture, Jun. 9-14, 2019, Beijing, China.
- 39. Workshop on PDEs and Applications, Jan. 18-20, 2019, South China Normal University, Guangzhou, China.
- 40. Workshop on Nonlinear PDES, Dec. 13, 2018, Jinan University, Guangzhou, China.
- 41. PDE Workshop, Dec. 7-9, 2018, Beijing University of Technology, Beijing, China.
- 42. Workshop on Nonlinear PDEs, Nov. 30 Dec. 2, 2018, Sun Yat-sen University, Guangzhou, China.
- 43. Workshop on nonlinear PDEs in fluid dynamics and applications, Nov. 16-19, 2018, Huaqiao University, Quanzhou, China.
- 44. 2018 PDE workshop in Hangzhou, Apr. 6-8, 2018, Zhejiang University, Hangzhou, China.
- 45. Workshop on Boltzmann and Dispersive Equations, Dec. 29-30, 2017, Central China Normal University, Wuhan, China.
- 46. Workshop on PDE programme, Nov. 25-26, 2017, Hua Loo-Keng Center for Mathematical Sciences, Beijing, China.
- 47. International Conference on Nonlinear Analysis: Kinetic Theory, Gas Dynamics, and Related Fields, Oct. 28-30, 2017, Institute of Mathematics, Academia Sinica, Taipei, Taiwan.
- 48. Workshop on Kinetic and Related Models, Oct. 25-26, 2017, City University of Hong Kong, Hong Kong.

- 49. Workshop on Hypocoercivity and Sensitivity Analysis in Kinetic Equations and Uncertainty Quantification, Oct. 2-6, 2017, University of Wisconsin-Madison, Wisconsin, USA.
- 50. TIANFU International Conference on Partial Differential Equations, Jun. 16-18, 2017, Southwestern University of Finance and Economics, Chengdu, China.
- 51. Mini-Workshop on PDEs and Its Applications, Sichuan University, June 18-19, 2017, Chengdu, China.
- 52. Workshop on Kinetic Models: Theory, Numerics and Analysis, Capital Normal University, May 27-29, 2017, Beijing, China.
- 53. The Annual General Meeting 2017, Hong Kong Mathematical Society, May 20, 2017, HKUST, Hong Kong.
- 54. The 4th Youth Academic Forum on PDEs, Mar. 10-12, 2017, South China University of Technology, Guangzhou, China.
- 55. Conference on Applied Analysis, Feb. 24-25, 2017, Jinan University, Guangzhou, China.
- 56. 2016 Young Researchers Workshop on Nonlinear PDEs Arising in Fluid Dynamics and Related Fields, Dec. 2-4, 2016, South China University of Technology, Guangzhou, China.
- 57. IMS PDE workshop, July 15-16, 2016, The Chinese University of Hong Kong, Hong Kong.
- 58. NSFC-RGC Young Scholar Forum, Southern University of Science and Technology, July 7-8, 2016, Shenzhen, China.
- 59. The 7th Pacific RIM Conference on Mathematics 2016, Session on Kinetic and related models, June 27 July 1, 2016, Seoul National University, Seoul, Korea.
- 60. Workshop on the Boltzmann Equation, Microlocal Analysis and Related Topics, May 27-29, 2016, Kyoto University, Kyoto, Japan.
- 61. Workshop on PDEs, April 26-27, 2016, Nanjing University of Aeronautics and Astronautics, Nanjing, China.
- 62. Workshop on Nonlinear PDEs, January 11, 2016, City University of Hong Kong, Hong Kong.
- 63. The Workshop on Partial Differential Equations and Applications, October 8-10, 2015, Jinan University, Guangzhou, China.
- 64. Workshop on PDE Problems Arising From Biology and Related Area, August 18-19, 2015, The Hong Kong Polytechnic University, Hong Kong.

- 65. Workshop on Kinetic and Related Equations, July 5-10, 2015, The Casa Matemática Oaxaca (CMO), Oaxaca, Mexico.
- 66. The 4th International Conference on Nonlinear Evolutionary Partial Differential Equations — Theories and Applications, June 2-7, 2015, Shanghai Jiao Tong University, Shanghai, China.
- 67. The 8th International Conference on Nonlinear PDEs & Their Numerical Analysis, May 25-28, 2015, Hangzhou, China.
- 68. Workshop on Applied Analysis, Feb. 24-25, 2015, City University of Hong Kong, Hong Kong.
- 69. The International Conference on Applied Analysis, Jan. 9-10, 2015, Jinan University, Guangzhou, China.
- 70. Workshop on PDE, IP and IS, Jan. 1-3, 2015, Sun Yat-sen University, Guangzhou, China.
- 71. International Conference on Recent Advances in Hyperbolic Partial Differential Equations, Dec. 4-6, 2014, Hiroshima, Japan.
- 72. The Fourth Joint China-Australia Conference on Nonlinear Partial Differential Equations and Related Topics, Nov. 27-30, 2014, IMS, CUHK, Hong Kong.
- 73. XV International Conference on Hyperbolic Problems: Theory, Numerics and Applications (HYP2014), Jul. 28 Aug. 1, 2014, IMPA, Rio de Janeiro, Brazil.
- 74. Yunnan MS-HKMS Joint Annual Meeting, July 19-20, 2014, Lijiang, China.
- 75. The International Conference on Nonlinear Evolutionary Partial Differential Equations -Theories and Applications, Jun. 3-8, 2014, Shanghai Jiao Tong University, Shanghai, China.
- 76. IMS Workshop on Nonlinear PDEs from Fluids and Related Topics, Mar. 24-26, 2014, CUHK, Hong Kong.
- 77. Workshop on the recent progress of the Boltzmann equation, Mar. 15-16, 2014, Tsinghua University, Beijing, China.
- 78. The SJTU International Forum on Mathematics, Jan. 10-12, 2014, Shanghai Jiao Tong University, Shanghai, China.
- 79. Joint Workshop on Partial Differential Equations, Nov. 15-18, 2012, Shanghai Jiao Tong University, Shanghai, China.

- 80. Workshop on "PDE Problems in Mathematical Biology and Physics", Jun. 22-23, 2012, The Hong Kong Polytechnic University, Hong Kong.
- 81. Workshop on Kinetic and Related Models, Mar. 8-10, 2012, Jinan University, Guangzhou, China.
- 82. The ninth nonlinear PDE workshop, Jul. 29-30, 2011, Sun Yat-Sen University, Guangzhou, China.
- 83. Conference on Kinetic Theory and Related Fields, Jun. 22-24, 2011, Pohang University of Science and Technology, Pohang, Korea.
- 84. Workshop on Applied Mathematics, Jun. 5, 2011, Wuhan University, China.
- 85. Austrian-Chinese Workshop on Dissipative Systems: Kinetic Theory and Semiconductor Applications, Nov. 3-5, 2010, Vienna University of Technology, Vienna, Austria.
- 86. Workshop on Kinetic and Related Models, Oct. 15-19, 2010, Northwest University, Xi'an, China.
- 87. The 6th Conference "Topics in Nonlinear Problem", Sep. 16-18, 2010, Yamaguchi University, Yamaguchi, Japan.
- 88. Concentration en vitesse et en espace dans les modèles cinétiques et diffusifs (chemotaxis, gravitation, swarming), Oct. 6-7, 2009, Institut Henri Poincaré and Ecole Normale Superieure, Paris, France.
- 89. Modern Topics in Nonlinear Kinetic Equations, Apr. 20-22, 2009, University of Cambridge, Cambridge, UK.
- 90. Kinetic modelling for socio-economic and related problems, Nov. 27-29, 2008, Vigevano, Italy.
- 91. Second Workshop on Nonlinear Partial Differential Equations: Analysis, Computation and Application, May 31 Jun. 2, 2007, Seoul National University, Seoul, Korea.
- 92. International Conference on Conservation Laws & Kinetic equations, Dec. 7-12, 2006, Shanghai Jiao Tong University, Shanghai, China.

### Talks in organized sessions

93. Session FM03 on "Mathematical Theory in Fluid Mechanics", The 17th Annual Conference of China Society for Industrial and Applied Mathematics, Sep. 19-22, 2019, Foshan, China.

- Session on "Partial Differential Equations in Fluid Dynamics", The 9th International Congress on Industrial and Applied Mathematics - ICIAM 2019, Jul. 15-19, 2019, Valencia, Spain.
- 95. Session on "System of Conservation Laws and Related Models", The 8th international Congress on Industrial and Applied Mathematics, Aug. 10-14, 2015, Beijing, China.
- 96. Session on "Qualitative behavior of PDEs in fluid mechanics and related topics", The 10th International Society for Analysis, its Applications and Computation, Aug. 3-8, 2015, University of Macau, Macao.
- 97. The Hong Kong Mathematical Society Annual General Meeting 2014, Jun. 6, 2014, Hong Kong.
- 98. The 12th Annual Conference of China Society for Industrial and Applied Mathematics, Aug. 19-24, 2012, Hefei, China.
- 99. The 4th MSJ-SI (Mathematical Society of Japan, Seasonal Institute) Nonlinear Dynamics in Partial Differential Equations Sep. 12-21, 2011, Kyushu University, Fukuoka, Japan.
- 100. International Conference on Nonlinear Evolutionary Partial Differential Equations Theories and Applications (NEPDE), Jan. 10-15, 2011, Shanghai Jiao Tong University, Shanghai, China.
- 101. Thirteenth International Conference on "Hyperbolic Problems: Theory, Numerics and Applications", HYP2010, Jun. 15-19, 2010, Beijing, China.

#### Contributed talks in conferences and workshops

- 102. The seventh International Congress of Chinese Mathematicians (ICCM), August 6-11, 2016, Beijing, China.
- 103. The Sixth International Congress of Chinese Mathematicians (ICCM), July 14-19, 2013, Taipei.
- 104. The Fourteenth International Conference on Hyperbolic Problems: Theory Numerics and Applications, Jun. 25-29, 2012, University of Padova, Padova, Italy.
- 105. The 8th East-Asia PDE Conference, Dec. 19-22, 2011, POSTECH, Korea.
- 106. Joint SIAM/RSME-SCM-SEMA Meeting "Emerging Topics in Dynamical Systems and Partial Differential Equations", DSPDEs'10, May 31 Jun. 4, 2010, Barcelona, Spain.
- 107. Workshop "Theory and Numerics for Kinetic Equations", Nov. 16-18, 2009, Saarland University, Saarbrücken, Germany.

- 108. Workshop on "Kinetics and statistical methods for complex particle systems", July 20-24, 2009, Complexo Interdisciplinar da Universidade de Lisboa, Lisbon, Portugal.
- 109. Twelfth International Conference on "Hyperbolic Problems: Theory, Numerics, Applications", Jun. 9-13, 2008, University of Maryland, College Park, USA.
- 110. Fourth Pacific Rim Conference on Mathematics, Dec. 7-11, 2007, City University of Hong Kong, Hong Kong.

#### Lecture series

- 111. Introduction to the Boltzmann equation, Online lectures in 19th PDE Summer School, Aug. 2-20, 2021, Harbin Engineering University, China.
- 112. Global well-posedness for the non-cutoff Boltzmann equation, Online lectures in POSTech, Dec. 7, 2020, Pohang, South Korea.
- 113. Global well-posedness for the non-cutoff Boltzmann equation, Tianyuan Mathematical Center in Central China, Dec. 10-11, 2019, Wuhan, China.
- 114. Mini-course on Kinetic Equations, South China University of Technology, Dec. 4-7, 2018, Guangzhou, China.
- 115. A Short Introduction to the Boltzmann Equation, Capital Normal University, Jan. 17-20, 2018, Beijing, China.
- 116. Dissipative structure of the Boltzmann equation, Beijing University of Technology, July 21, 2013, Beijing, China.
- 117. Decay structure of the Boltzmann equation, Pohang University of Science and Technology, May 27 June 9, 2013, Korea.