

List of publications by Renjun Duan

• Peer-reviewed research papers accepted and published

1. With Dingqun Deng: Spectral gap formation to kinetic equations with soft potentials in bounded domain, accepted for publication in **Communications in Mathematical Physics** (August 26, 2022), arXiv:2105.00901.
2. With Shuangqian Liu, Tong Yang and Zhu Zhang: Heat transfer problem for the Boltzmann equation in a channel with diffusive boundary condition, submitted (Dedicated to the memory of Professor Chaohao Gu), accepted for publication in **Chinese Annals of Mathematics, Series B** (July 28, 2022), arXiv:2204.09587, <https://arxiv.org/abs/2204.09587>
3. With Shuangqian Liu and Tong Yang: The Boltzmann equation for plane Couette flow, accepted for publication in **Journal of the European Mathematical Society** (July 5, 2022). arXiv.2107.02458
4. With Ling-Bing He, Tong Yang, and Yu-Long Zhou: Solutions to the non-cutoff Boltzmann equation in the grazing limit, accepted for publication in **Annales de l'Institut Henri Poincaré, Analyse Non Linéaire** (April 29, 2022). arXiv.2105.13606
5. With Dongcheng Yang and Hongjun Yu: Asymptotics toward viscous contact waves for solutions of the Landau equation, **Communications in Mathematical Physics**, **394** (2022), 471–529. DOI
6. With Shuangqian Liu: On smooth solutions to the thermostated Boltzmann equation with deformation, **Communications in Mathematical Analysis and Applications**, **1** (2022), no. 1, 152–212. DOI
7. With Wei-Xi Li and Lvqiao Liu: Gevrey regularity of mild solutions to the non-cutoff Boltzmann equation, **Advances in Mathematics**, 395 (2022), Paper No. 108159. DOI
8. With Shuangqian Liu: The Boltzmann equation for uniform shear flow, **Archive for Rational Mechanics and Analysis**, 242 (2021), no. 3, 1947–2002. DOI
9. With Shuangqian Liu and Tong Yang: Global classical solutions for the Vlasov-Nordström-Fokker-Planck system, **SIAM Journal on Mathematical Analysis**, 53 (2021), no. 5, 6164–6190. DOI
10. With Haiyan Yin and Changjiang Zhu: A half-space problem on the full Euler-Poisson system, **SIAM Journal on Mathematical Analysis**, 53 (2021), no. 5, 6094–6121. DOI

11. With Shuangqian Liu: Compressible Navier-Stokes approximation for the Boltzmann equation in bounded domains, **Transactions of the American Mathematical Society**, 374 (2021), no. 11, 7867–7924. DOI
12. With Dongcheng Yang and Hongjun Yu: Small Knudsen rate of convergence to rarefaction wave for the Landau equation, **Archive for Rational Mechanics and Analysis**, 240 (2021), no. 3, 1535–1592. DOI
13. With Shuangqian Liu, Shota Sakamoto and Robert M. Strain: Global mild solutions of the Landau and non-cutoff Boltzmann equations, **Communications on Pure and Applied Mathematics**, 74 (2021), no. 5, 932–1020. DOI
14. With Hongjun Yu: The 3D Vlasov-Poisson-Landau system near 1D local Maxwellians, **Journal of Statistical Physics**, 182 (2021), no. 2, 33. DOI
15. With Shuangqian Liu and Zhu Zhang: Ion-acoustic shock in a collisional plasma, **Journal of Differential Equations**, 269 (2020), no. 4, 3721–3768. DOI
16. With Hongjun Yu: The Vlasov-Poisson-Landau system near a local Maxwellian, **Advances in Mathematics**, 362 (2020), 106956, 83 pp. DOI
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18. With Yong Wang and Zhu Zhang: The Boltzmann equation with time-periodic boundary temperature, **Acta Mathematicae Applicatae Sinica. English Series**, 35 (2019), no. 1, 174–208. DOI
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24. With Yoshihiro Ueda and Shuichi Kawashima: Decay structure of two hyperbolic relaxation models with regularity-loss, **Kyoto Journal of Mathematics**, 57 (2017), no. 2, 235–292. DOI
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