List of Publications

Luan T. Hoang

October 7, 2024

48. Luan Hoang, *Asymptotic expansions with subordinate variables for solutions of the Navier–Stokes equations,* 1–40, submitted. Preprint
DOI: 10.48550/arXiv.2403.03132

47. Luan Hoang, Thinh Kieu, *Anisotropic flows of Forchheimer-type in porous media and their steady states,* 1–35, submitted. Preprint
DOI: 10.48550/arXiv.2306.05316

46. Luan Hoang, *On the finite time blow-ups for solutions of nonlinear differential equations,* 1–29, submitted. Preprint
DOI: 10.48550/arXiv.2303.10153

45. Luan Hoang, *Behavior near the extinction time for systems of differential equations with sublinear dissipation terms,* 1–22, submitted. Preprint
DOI: 10.48550/arXiv.2211.17241

44. Luan Hoang, Michael S. Jolly, *Intrinsic expansions in large Grashof numbers for the steady states of the Navier–Stokes equations,* Nonlineary (2024), 1–28, accepted. Preprint
DOI: 10.48550/arXiv.2402.13346

43. Luan Hoang, *A new form of asymptotic expansion for non-smooth differential equations with time-decaying forcing functions,* Differential Equations and Dynamical Systems (2024), 1–40, accepted. Preprint
DOI: 10.48550/arXiv.2309.10949

42. Luan Hoang, *Asymptotic expansions about infinity for solutions of nonlinear differential equations with coherently decaying forcing functions,* Annali della Scuola Normale Superiore di Pisa, Classe di Scienze, Vol. XXV, No. 1 (2024), 311–370.
DOI: 10.2422/2036-2145.202109_004

41. Ciprian Foias, Luan Hoang, Michael S. Jolly, *On Galerkin approximations of the Navier-Stokes equations in the limit of large Grashof numbers,* Communications on Pure and Applied Analysis, Volume 23, Issue 2 (2024), 269–303.
DOI: 10.3934/cpaa.2024010

40. Luan Hoang, *The Navier–Stokes equations with body forces decaying coherently in time,* Journal of Mathematical Analysis and Applications, Vol. 531, Issue 2, Part 1 (2024), 127863 (39 pages).
DOI: 10.1016/j.jmaa.2023.127863

39. Luan Hoang, *Long-time behavior of solutions of superlinear systems of differential equations,* Dynamical Systems, Vol. 39, No. 1 (2024), 79–107.
DOI: 10.1080/14689367.2023.2234845

38. Emine Celik, Luan Hoang, Thinh Kieu, *Studying a doubly nonlinear model of slightly compressible Forchheimer flows in rotating porous media,* Turkish Journal of Mathematics, Turkish Journal of Mathematics, Vol. 47, No. 3 (2023), 949–987.
DOI: `10.55730/1300-0098.3405`

37. Dat Cao, Luan Hoang, Thinh Kieu, *Infinite series asymptotic expansions for decaying solutions of dissipative differential equations with non-smooth nonlinearity,* Qualitative Theory of Dynamical Systems, Volume 20, Issue 3 (2021), 62, 38 pp.
DOI: `10.1007/s12346-021-00502-9`

36. Emine Celik, Luan Hoang, Thinh Kieu, *Slightly compressible Forchheimer flows in rotating porous media,* Journal of Mathematical Physics, Volume 62 (2021), Issue 7, 073101, 39 pp.
DOI: `10.1063/5.0047754`

35. Dat Cao, Luan Hoang, *Asymptotic expansions with exponential, power, and logarithmic functions for non-autonomous nonlinear differential equations,* Journal of Evolution Equations, Volume 21, Issue 2, 1179–1225, 2021.
DOI: `10.1007/s00028-020-00622-w`

34. Luan Hoang, *Asymptotic expansions for the Lagrangian trajectories from solutions of the Navier–Stokes equations,* Communications in Mathematical Physics, Volume 383, Issue 2, 981–995 (2021).
DOI: `10.1007/s00220-020-03863-5`

33. Luan Hoang, Edriss Titi, *Asymptotic expansions in time for rotating incompressible viscous fluids,* Annales de l'Institut Henri Poincaré. Analyse Non Linéaire, Volume 38, Issue 1, January–February 2021, 109–137.
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32. Dat Cao, Luan Hoang, *Asymptotic expansions in a general system of decaying functions for solutions of the Navier-Stokes equations,* Annali di Matematica Pura ed Applicata, Vol. 199, No. 3 (2020), 1023–1072.
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31. Dat Cao, Luan Hoang, *Long-time asymptotic expansions for Navier–Stokes equations with power-decaying forces,* Proceedings of the Royal Society of Edinburgh: Section A Mathematics, Vol. 150, No. 2 (2020), 569–606.
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30. Luan Hoang, Thinh Kieu, *Global estimates for generalized Forchheimer flows of slightly compressible fluids,* Journal d'Analyse Mathematique, March 2019, Volume 137, Issue 1, 1–55.
DOI: `10.1007/s11854-018-0064-5`

29. Emine Celik, Luan Hoang, Thinh Kieu, *Doubly nonlinear parabolic equations for a general class of Forchheimer gas flows in porous media,* Nonlinearity, Vol. 31, No. 8

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28. Ciprian Foias, Luan Hoang, Jean-Claude Saut, *Navier and Stokes meet Poincaré and Dulac,* J. Appl. Anal. Comput., Volume 8, Number 3, (June 2018) 727–763. (survey)
DOI: 10.11948/2018.727

27. Luan Hoang, Vincent Martinez, *Asymptotic expansion for solutions of the Navier-Stokes equations with non-potential body forces,* J. Math. Anal. Appl., Volume 462, Issue 1, (1 June 2018) 84–113.
DOI: 10.1016/j.jmaa.2018.01.065

26. Emine Celik, Luan Hoang, Thinh Kieu, *Generalized Forchheimer flows of isentropic gases,* J. Math. Fluid Mech., (March 2018) Volume 20, Issue 1, 83–115.
DOI: 10.1007/s00021-016-0313-2

25. Luan Hoang, Eric Olson, James Robinson, *Continuity of pullback and uniform attractors,* J. Differential Equations, Volume 264, Issue 6, (15 March 2018) 4067–4093.
DOI: 10.1016/j.jde.2017.12.002

24. Luan Hoang, Thinh Kieu, *Interior estimates for generalized Forchheimer flows of slightly compressible fluids,* Advanced Nonlinear Studies, 17(4), (October 2017) 739–767.
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23. Luan Hoang, Vincent Martinez, *Asymptotic expansion in Gevrey spaces for solutions of Navier-Stokes equations,* Asymptotic Analysis, (2017), vol. 104, no. 3–4, 167–190.
DOI: 10.3233/ASY-171429

22. Emine Celik, Luan Hoang, Akif Ibragimov, Thinh Kieu, *Fluid flows of mixed regimes in porous media,* J. Math. Phys., Volume 58 (2017), No. 2, 023102, 30 pp.
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21. Emine Celik, Luan Hoang, *Maximum estimates for generalized Forchheimer flows in heterogeneous porous media,* J. Differential Equations, Volume 262, Issue 3 (5 February 2017), 2158–2195.
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20. Luan Hoang, Truyen Nguyen, Tuoc Phan, *Local gradient estimates for degenerate elliptic equations,* Advanced Nonlinear Studies, Volume 16, Issue 3 (Aug 2016), 479–489.
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19. Emine Celik, Luan Hoang, *Generalized Forchheimer flows in heterogeneous porous media,* Nonlinearity, Volume 29, Number 3 (March 2016), 1124–1155.
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18. Luan Hoang, Akif Ibragimov, Thinh Kieu, Zeev Sobol, *Stability of solutions to generalized Forchheimer equations of any degree,* Journal of Mathematical Sciences (via

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17. Luan Hoang, Eric Olson, James Robinson, *On the continuity of global attractors,* Proc. Amer. Math. Soc., Volume 143, Number 10 (2015), 4389–4395.
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16. Luan Hoang, Truyen Nguyen, Tuoc Phan, *Gradient estimates and global existence of smooth solutions to a cross-diffusion system,* SIAM Journal on Mathematical Analysis, SIAM Journal on Mathematical Analysis, Volume 47, Issue 3 (2015), 2122–2177.
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14. Luan Hoang, Thinh Kieu, Tuoc Phan, *Properties of generalized Forchheimer flows in porous media,* "Problems of Mathematical Analysis", volume 76 (July-August 2014), and in "Journal of Mathematical Sciences", Vol. 202 No. 2 (October 2014), 259–332.
DOI: 10.1007/s10958-014-2045-2

13. Luan Hoang, *Incompressible fluids in thin domains with Navier friction boundary conditions (II),* Journal of Mathematical Fluid Mechanics, Volume 15, Issue 2, (June 2013) 361–395.
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5. Ciprian Foias, Luan Hoang, Basil Nicolaenko, *On the helicity in 3D Navier–Stokes equations II: The statistical case*, Communications in Mathematical Physics, Volume 290, Issue 2 (2009), 679–717.
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4. Ciprian Foias, Luan Hoang, Eric Olson, Mohammed Ziane, *The normal form of the Navier–Stokes equations in suitable normed spaces*, Annales de l'Institute Henri Poincaré - Analyse Non Linéaire, Volume 26, Issue 5 (September-October 2009), 1635–1673.
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