

Curriculum Vitae — Dr. Jichen Yang

Personal data

Born on January 2, 1990 in Beijing, married to Chen Gai.

Contact

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Research interests

Dynamics of ordinary and partial differential equations, pattern formation, nonlinear waves, stability analysis, fractional calculus and differential equations, anomalous diffusion.

Employment

06/20 – now Postdoctoral Fellow, Department of Mathematics, Jacobs University Bremen, Germany.

Education

- 10/15 – 03/20 Doctoral student in Mathematics.
Faculty 3 Mathematics and Computer Science, University of Bremen, Germany.
Doctor of Natural Sciences (Dr.rer.nat.). Grade: magna cum laude.
Advisor: Prof. Jens Rademacher.
- 09/19 – 06/15 Postgraduate in Applied Mathematics.
School of Mathematics and Physics, China University of Geosciences, China.
Master of Science. Grade: 88/100. Advisor: Prof. Anping Liu.
- 09/08 – 06/12 Undergraduate in Information and Computing Science.
School of Mathematics and Physics, China University of Geosciences, China.
Bachelor of Science. Grade: 85/100. Thesis advisor: Prof. Anping Liu.

Grants, scholarships & awards

- Degree completion stipend, University of Bremen, Germany, 10/19 – 03/20.
- Impulse Grants Travel Expenses Allowances, CRDF University of Bremen, Germany, 2017.
- Outstanding Master's Degree Thesis in Hubei Province, China, 2016.
- PhD Scholarship, 48 months, China Scholarship Council, China, 10/15 – 09/19.
- National Scholarship, China, 2014.
- Outstanding Graduate Student, China, 2013 – 2014.
- Second Prize in National Post-Graduate Mathematic Contest in Modeling, China, 2013.
- Second Prize in China University of Geosciences Postgraduate Scientific Papers Report, China, 2013.
- Yuan Yu Mei Outstanding Graduate Student Scholarship, China, 2013.
- Graduate School Scholarship, China, 2012 – 2014.
- Outstanding Bachelor's Degree Thesis in Hubei Province, China, 2012.
- National Endeavor Fellowship, China, 2011.
- Academic Scholarship, China, 2009 – 2012.

Publications & preprints

1. J. Yang, J. D. M. Rademacher, E. Siero. The impact of advection on the stability of stripes on lattices near planar Turing instabilities. *arXiv preprint arXiv:2002.12579* (2020).
2. J. Yang, J. D. M. Rademacher, E. Siero. The impact of advection on large-wavelength stability of stripes near planar Turing instabilities. *arXiv preprint arXiv:1912.11294* (2019).
3. J. Yang, J. D. M. Rademacher. Reaction-subdiffusion systems and memory: spectra, Turing instability and decay estimates. *arXiv preprint arXiv:1910.03822* (2019).
4. J. Yang, A. Liu, T. Liu. Forced oscillation of nonlinear fractional differential equations with damping term. *Advances in Difference Equations* 2015.1 (2015): 1–7.
5. J. Yang, M. Wang, X. Zhang, A. Liu. Oscillation of nonlinear impulsive hyperbolic equations of neutral type (Chinese). *Journal of Biomathematics* 29.4 (2014): 1–5.
6. L. Xiao, J. Yang, G. Liu, A. Liu. Oscillation of neutral type nonlinear impulsive hyperbolic equations with several delays. *Applied Mechanics and Materials* 275–277 (2013): 843–847.
7. J. Yang, A. Liu, G. Liu. Oscillation of solutions to neutral nonlinear impulsive hyperbolic equations with several delays. *Electronic Journal of Differential Equations* 2013.27 (2013): 1–10.

Theses

- Diffusion, Advection and Pattern Formation. PhD Thesis, University of Bremen (2020), <https://doi.org/10.26092/elib/21>.
- Oscillation of Differential Equations. Master Thesis, China University of Geosciences (2015).

Co-organised mini-symposium

- “Nonlinear Waves and Patterns”, SIAM Conference on Applications of Dynamical Systems, 2019.

Invited talks

- 14/05/20 The role of advection on the stability of stripes near planar Turing instabilities (online). Lehrstuhlseminar Analysis und Modellierung, University of Stuttgart, Germany.
- 29/04/20 The role of advection on the stability of stripes near planar Turing bifurcation (online). Angewandte Analysis Oberseminar, Martin Luther University Halle-Wittenberg, Germany.
- 13/01/20 The role of advection on the stability of stripes near planar Turing instabilities (online). Dynamical Systems Seminar, Boston University, USA.
- 03/12/19 Spectral analysis and decay estimates for reaction-subdiffusion equations. Computational Analysis Seminar, Jacobs University, Germany.
- 18/11/19 Spectral analysis and decay estimates for reaction-subdiffusion equations. Oberseminar Dynamics, Technical University of Munich, Germany, November 18–19, 2019.
- 21/05/19 The role of advection for patterns near Turing instabilities in planar reaction-diffusion systems. Minisymposium talk at SIAM Conference on Applications of Dynamical Systems, Snowbird, USA, May 19–23, 2019.
- 25/04/18 Spectra, stability and energy estimates for reaction subdiffusion equations. Dynamical Systems and Geometry Oberseminar, University of Bremen, Germany.

Contributed talks

- 20/07/18 Spectra, stability and energy estimates for reaction subdiffusion equations. The 5th annual International Conference-School ‘Dynamics, Bifurcations, and Chaos’, Nizhny Novgorod, Russia, July 16–20, 2018.

29/05/18 Spectra, stability and energy estimates for reaction subdiffusion equations. Summer School on Fractional and Other Nonlocal Models, Basque Center for Applied Mathematics, Bilbao, Spain, May 28–31, 2018.

Posters

- 09/07/19 Spectral, stability and energy estimates for reaction sub-diffusion systems. Equadiff 2019, Leiden, Netherlands, July 8–12, 2019.
- 24/05/17 Spectrum and Turing instabilities for sub-diffusion reaction systems. SIAM Conference on Applications of Dynamical Systems, Snowbird, USA, May 21–25, 2017.

Conferences

- The 7th Bremen Summer School and Symposium ‘Dynamical systems - pure and applied’, University of Bremen, Germany, August 5–9, 2019.
- The 6th Bremen Winter School and Symposium ‘Dynamical systems and turbulence’, University of Bremen, Germany, March 12–16, 2018.
- The 15th winter school in Dynamical Systems of the DANCE (Dinámica, Atractores y Nolinealidad: Caos y Estabilidad) Spanish network, Rtns 2018, University of La Rioja, Spain, January 22–26, 2018.
- Workshop ‘Analysis and PDE’, Leibniz University Hannover, Germany, October 4–6, 2017.
- The 5th Bremen Winter School and Symposium ‘Dynamical systems and fluids’, Universität of Bremen, Germany, March 27–31, 2017.
- The 14th winter school in Dynamical Systems of the DANCE (Dinámica, Atractores y Nolinealidad: Caos y Estabilidad) Spanish network, Rtns 2017, University of Vigo, Spain, January 23–26, 2017.
- Symposium ‘Mathematics, waves and geophysical flow’, University of Bremen, Germany, December 15–16, 2016.
- Short course ‘Numerical continuation with AUTO and PDE2PATH’, University of Bremen, Germany, September 20–21, 2016.
- Patterns of Dynamics, Free University of Berlin, Germany, July 25–29, 2016.
- The 4th Bremen Winter School and Symposium: Dynamics, Chaos and Applications, University of Bremen, Germany, March 14–18, 2016.

Teaching assistant

- Tutorials in Calculus, China University of Geosciences, First semester 2014 – 2015.
- Tutorials in Calculus, China University of Geosciences, Second semester 2013 – 2014.
- Tutorials in Partial Differential Equation, China University of Geosciences, First semester 2013 – 2014.
- Tutorials in Linear Algebra, China University of Geosciences, Second semester 2012 – 2013.

Language

Chinese, English.

Skills

Mathematica, Matlab, SageMath.

Bremen, June 16, 2020