

Jeremy Wu

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EDUCATION

- University of Oxford** 2018 – current
Doctor of Philosophy in Mathematics Oxford, UK
- Thesis title: [The Landau Equation as a Gradient Flow](#).
 - Supervisors: Professor José Antonio Carrillo and Assistant Professor Matias Delgadino.
 - 2020 – Awarded the Mathematical Institute Award for support during the PhD.
- University of Cambridge** 2017 – 2018
Master of Advanced Studies in Mathematics (Distinction) Cambridge, UK
- Essay title: [Non-standard Analysis](#).
 - Essay Supervisor: Doctor Thomas Forster.
 - 2018 – Awarded the Thatcher Prize for distinguished performance in examinations.
- Imperial College London** 2013 – 2017
Master of Science in Mathematics (1st class) London, UK
- Thesis title: [Inviscid flow past a wedge](#).
 - Essay Supervisor: Professor Anatoly Ruban.
 - 2018 – Awarded the President’s Scholarship for support during the PhD (prior to transferring to Oxford).
 - 2017 – Awarded the Governors’ Prize for best performance in Mathematics.
 - 2016 – Awarded the Derek Moore Memorial Prize for excellence in Applied and Computational Mathematics.
 - 2015 – Awarded the Institute of Mathematics and its Applications Prize for excellence in Applied Mathematics.

PREPRINTS AND PUBLICATIONS

- [Boltzmann to Landau from the Gradient Flow Perspective](#) February 2022
- Joint work with J. A. Carrillo and M. Delgadino.
 - Published in *Nonlinear Analysis* volume 219, page 112824.
- [An Invariance principle for gradient flows in the space of probability measures](#) 2020 (Preprint)
- Joint work with J. A. Carrillo and R. Gvalani.
- [The Landau equation as a Gradient Flow](#) 2020 (Preprint)
- Joint work with J. A. Carrillo, M. Delgadino, and L. Desvillettes.
- [A particle method for the homogeneous Landau equation](#) June 2020
- Joint work with J. A. Carrillo, J. Hu, and L. Wang.
 - Published in *Journal of Computational Physics: X* volume 7 page 100066.

ACADEMIC ACTIVITIES

Refer to my [website](#) for a full list. I highlight the following recent events in 2022.

- [SIAM Conference on Analysis of PDEs \(PD22\)](#) 14-18 March 2022
Minisymposium speaker and organiser Berlin, Germany (virtual)
- Organised and co-chaired the sessions of “Challenges in the Kinetic Modelling of Complex Systems” [Minisymposium](#).
 - Presented [Boltzmann to Landau from the Gradient Flow Perspective](#).
- [Frontiers in kinetic theory - KineCon 2022](#) January - June 2022
Invited speaker and participant Cambridge, UK
- Presented [The Landau equation as a Gradient Flow](#).
 - Will present [Boltzmann to Landau from the Gradient Flow Perspective](#) at the [Frontiers in kinetic equations for plasmas and collective behavior](#) workshop.

EXPERIENCE

Graduate Teaching Assistant

October 2016 – current

Imperial College London | University of Oxford

UK

- Teaching undergraduates in small (1:2) and large (\sim 1:100) weekly tutorials.
- Organising, planning, and marking tutorial content with a team in advance.
- Adapting and presenting material for physical and online tutorials.
- Received positive feedback; “[these tutorials] were probably the best I’ve had in Oxford.”

TECHNICAL SKILLS

Languages: English (native), German (A1), Mandarin Chinese (Basic).

Coding: \LaTeX , Matlab, Maple, Python, R, HTML, CSS.

TRANSFERABLE SKILLS

Leadership: Directing recent research projects in relation to my PhD thesis.

Teamwork: Eagerly willing to cooperate with others for research projects and teaching responsibilities.

Organisation: Committed to planning and balancing my research, teaching commitments, and academic activities.

Independence: Dedicated to pursuing research direction for the Landau equation without supervision.

Problem Solving: Highly trained in logical reasoning from education and current research projects.