Vinh Thi Nguyen

Updated January 2026

Department of Mathematics, UC Berkeley
968 Evans Hall
Berkeley, CA 94720
https://math.berkeley.edu/people/vinh-nguyen
Email: vnguyen26@berkeley.edu

EMPLOYMENT

University of California Berkeley — Berkeley, CA
Charles B. Morrey Visiting Assistant Professor — Jan 2026 – present

Michigan State University — East Lansing, MI
Postdoctoral Research Associate — Jul 2024 – Dec 2025

Institute of Mathematics, Vietnam Academy of Science and Technology — Hanoi, Vietnam
Researcher — 2013 – 2017

VISITING POSITIONS

Institute for Pure and Applied Mathematics (IPAM) — Los Angeles, CA
Postdoctoral Fellow — Fall 2025
Long program:*"Bridging the Gap: Transitioning from Deterministic to Stochastic Interaction Modeling in Electrochemistry"*

EDUCATION

Ph.D. in Mathematics, University of Illinois at Chicago (UIC) — 2024
Advisor: Prof. Roman Shvydkoy

M.A. in Mathematics, Indiana University Bloomington (IUB) — 2019

M.Sc. in Mathematics, Institute of Mathematics, Hanoi, Vietnam — 2012
Advisor: Prof. Nguyen Dong Yen

Bachelor of Education in Mathematics, Thai Nguyen University of Education, Vietnam — 2010

HONORS & AWARDS

- Damber Singh Tomer and Meena Singh Tomer Endowed International Scholarship, UIC — 2024
- Victor Twersky Memorial Scholarship, UIC — 2022
- University Fellowship, Graduate College, UIC — 2019 –2023
- College of Arts and Sciences Fellowship, IUB — Spr 2018
- Vietnam Education Foundation Fellowship (VEF) (*declined*) — Cohort 2016
- Travel Award: The 3rd HLF, Heidelberg, Germany — Aug 2015
- Honored for Excellent Performance in the Master Program, Hanoi Institute of Mathematics — 2012
- Undergraduate Student Fellowship, Thai Nguyen University of Education — 2007–2010

Research Interests

PDEs, SPDEs, Models of Collective Behavior, Interacting Particle Systems, Duality Theory, Interpolation and Extension Theory, Optimization Theory

Publications/ Preprints

7. V. Nguyen, R. Shvydkoy and C. Tan, *Mean-field limits of deterministic and stochastic flocking models with nonlinear velocity alignment*, arXiv preprint, arXiv:2512.24383.

6. V. Nguyen, *Non-attainment of minima in non-polyhedral conic optimization: a robust SOCP example*, arXiv preprint, arXiv:2510.00318

5. V. Nguyen, *Exponential relaxation to equilibrium for a kinetic Fokker-Planck-Alignment equation with force*, arXiv preprint, arXiv:2310.16339.

4. V. Nguyen, K. Promislow and B. Wetton, *Quasisteady patterns in interfaces: folding and faceting*, Physica D: Nonlinear Phenomena, **482**, 2025.

3. V. Nguyen and R. Shvydkoy, *Continuous model of opinion dynamics with convictions*, Discrete and Continuous Dynamical Systems **43**(11):4010–4026, 2023.

2. V. Nguyen and R. Shvydkoy, *Propagation of chaos for the Cucker-Smale systems under heavy tail communication*, Communications in Partial Differential Equations **47**(9):1883–1906, 2022.

1. N. T. Vinh, D. S. Kim, N. N. Tam, and N. D. Yen, *Duality gap function in infinite dimensional linear programming*, Journal of Mathematical Analysis and Applications **437**(1):1–15, 2016.

Teaching

University of California Berkeley

- Math 123: Ordinary Differential Equations   Spr 2026

I was a teaching assistant for the following courses:

Michigan State University

- MTH 235. Differential Equations   Spr 2025

University of Illinois at Chicago

- MCS 401. Computer Algorithms I   Spr 2024
- MATH 480. Applied Differential Equations   Fall 2022
- MATH 417. Complex Analysis with Applications   Fall 2022
- MATH 313. Analysis I   Fall 2022
- MATH 165. Calculus for Business   Spr 2021, 2022
- MATH 310. Applied Linear Algebra   Fall 2020, Spr 2024
- MATH 539. Functional Analysis   Fall 2020

Indiana University Bloomington

- MATH-M 365. Intro Probability & Statistics   Fall 2017

University of North Carolina at Chapel Hill

- STOR 445. Stochastic Modeling   Spr 2017
- STOR 113. Decision Models for Business and Economics   Fall 2016

University of Science and Technology of Hanoi

- Analysis and Differential Equations   Falls 2014, 2015

INVITED TALKS

- Workshop: Recent Advances in Nonlinear Partial Differential Equations   May 13–17, 2024
  University of Minnesota, Twin Cities (*Lightning talk*)

- Applied PDE Seminar, UC Berkeley (*Online*)   Feb 23, 2024

- Applied Math Seminar, UC Santa Cruz   Jan 08, 2024

- The 2023 SIAM Great Lakes Meeting, Michigan State University   Oct 14, 2023
  Mini-Symposium: Collective behavior in physical and social network models

- International Workshop "Variational Analysis and Application"   Aug 28 – Sep 05, 2015
  Erice, Sicily, Italy

- International Workshop on Nonlinear and Variational Analysis   Aug 2014
  Center for Fundamental Science, Kaohsiung Medical University, Taiwan

- The 8th Congress of the Vietnamese Mathematical Society, Nha Trang, Vietnam   Aug 2013

CONFERENCES & WORKSHOPS ATTENDED

- Riviere-Fabes Symposium on Analysis and PDE, University of Minnesota   Apr 29 – May 1, 2022

- Midwestern Workshop on Asymptotic Analysis, Indiana University Bloomington   Oct 5 – 7, 2018

- The Fourth Chicago Summer School In Analysis, University of Chicago   Jun 19 – 30, 2017

- Workshop: Analysis in Lyon, Université Claude-Bernard Lyon 1, France   Oct 26 – 30, 2015

- The 3rd Heidelberg Laureate Forum, Heidelberg, Germany   Aug 23 – 28, 2015

SERVICES

Referee Work: Journal of Optimization Theory and Applications, Journal of Differential Equations

Organizing:

- Co-organizing (with Keith Promislow) the minisymposium *Mean Field Limits of Particle Dynamics* at the SIAM Conference on Applications of Dynamical Systems (DS25), Denver, Colorado, May 11–15, 2025.

- Co-organizing (with Marjorie K. Drake and Paige Bright) the special session *Nonlinear Constraints: A Catalyst for Creativity in Analysis and its Applications* at the 2025 AWM Research Symposium, University of Wisconsin-Madison, May 16–18, 2025.

Outreach:

- Judge for the Fellowship for Pre-Graduate Studies in Mathematics, 2025.

- Volunteer to help introduce kids to mathematics outside the standard curriculum at Glencairn Elementary School Math Night (Nov 21, 2024).

- Contributor to the Graduate Opportunities for Women (GROW) 2020 organization.

TECHNICAL SKILLS

Julia   Mathematica   MATLAB   Python   HTML   LaTeX