Tung Tho Nguyen

CONTACT INFORMATION

Department of Mathematics
The University of Chicago
5734 S University Ave Chicago, IL 60637

Mobile: 312-478-7812
E-mail: tungnt@uchicago.edu
*Website:*https://tungprime.github.io/

EDUCATION

Doctor of Philosophy in Mathematics, The University of Chicago — December 2020

- Advisor: Professor Kazuya Kato
- Thesis: Special values of L-functions over global fields.

Master of Science in Mathematics, The University of Chicago — 2016

- Advisor: Professor Kazuya Kato
- Topic proposal: p-adic L-functions of elliptic curves with complex multiplication.

Bachelor of Science in Mathematics, Vietnam National University — 2009-2014

- Senior thesis advisor: Professor Ralph Greenberg
- Senior thesis: On the norm of the fundamental units in real quadratic number fields.

RESEARCH INTERESTS

Zeta values, Galois theory, random graph theory, computational neuroscience.

PUBLICATIONS AND PREPRINTS

- Heights and Tamagawa numbers of motives (preprint, available here).
- Tamgawa number conjecture for a p-adic family of F-crystals (preprint, available here).
- Further insight into mysteries of values of zeta functions at integers (joint with Jan Minac and Nguyen Duy Tan).
- Fekete polynomials, quadratic residues, and arithmetic (joint with Jan Minac and Nguyen Duy Tan).
- Research experiences for undergraduates at VNU (published as a book)

SERVICES

- Co-organizer and speaker for the following learning groups at UChicago: etale cohomology (Fall 2015) and p-adic Hodge theory (Winter and Spring 2017).
- Mentored 3 projects for the Directed Reading Program (Spring 2016 and Fall 2017, Spring 2019).
  - Michael Cronin: Modular arithmeitcs.
  - Benjamin Andrew: Elementary number theory.
  - Xingyu Wang: p-adic numbers and applications.
- Mentored three projects during the REU program at UChicago (Summer 2016).
  - Hung Ho: Gaussian integers.
  - Christopher Wilson: A brief introduction to ZFC.
  - Mantas Mazeika: The singular value decomposition and low rank approximation.

SELECTED TALKS

- Power sums and special values of L-functions, Algebra Seminar, Western University, March 2021.
- Heights and Tamagawa numbers of motives, Algebra Seminar, Western University, February 2021.
- Hurwitz zeta functions, What is ... a seminar? February 2021.
- Heights and Tamagawa numbers of motives, HUJI-BGU Number Theory Seminar, December 2020.
- Heights and Tamagawa numbers of mixed motives, Interactions between Representation Theory and Algebraic Geometry, Chicago 2017 (poster session).
- Special values of the Riemann zeta function at negative integers, The Trojan Math Seminar.

CONFERENCES AND WORKSHOPS

- Arithmetic of low dimensional abelian varieties, ICERM 2019.
- Arizona Winter School 2018: Iwasawa theory.
- Arizona Winter School 2017: Perfectoid spaces.
- Interactions between Representation Theory and Algebraic Geometry, Chicago 2017.

TEACHING EXPERIENCES

- 2013: TA for a course in Galois theory (Professor Le Minh Ha.)
- 2014: Introduction to Statistics (Vietnam National University)
- 2015-2016: College Fellow for IBL Honors Calculus.
- 2016-2017: Lecturer for MATH 13100-13200-13300 (Elementary functions and calculus).
- 2017-2018: Lecturer for MATH 13100-13200-13300 (Elementary functions and calculus).
- 2018-2019: Lecturer for MATH 15200-15300 (Elementary functions and calculus).
- Summer 2019: Lecturer for the CAAP summer program at UChicago.
- 2019-2020: Lecturer for MATH 15100-15200 (Elementary functions and calculus).
- 2020-2021: MATH 15200 (via Zoom)

AWARDS AND SCHOLARSHIPS

- PI4-IMA fellowship, 2020
- National Program for the Development of Mathematics scholarship, 2014
- Honda Young Engineers and Scientists award for top 10 Vietnamese students in STEM fields, 2013.
- The prominent young students of Vietnam National University, 2013
- Watanabe-Kanda scholarship for outstanding students in the department of mathematics, 2012, 2013
- Second prize in Vietnam Mathematical Olympiad, 2009.
- Second prize in Hanoi Mathematical Olympiad for junior high school students, 2006.

COMPUTER SKILLS

• Python • Machine learning • Probabilistic programming with PyMC3