

Hoai Nam Le

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Florida Atlantic University

Research Interests

Algebraic Number Theory, Lattices, and Cryptography

Education

Florida Atlantic University

PhD in mathematics

Florida, United States

Aug 2024 - At present

Ho Chi Minh City University of Science

M.S in Algebra and Number Theory, GPA: 8.51/10.0

Ho Chi Minh City, Vietnam

Dec 2022

Thesis title: *Well-rounded twists of ideal lattices from imaginary quadratic fields.*

Thesis mark: 10/10

Supervisor: Assoc. Prof. Ha Tran, Dr. Le Van Luyen.

Ho Chi Minh University of Education

B.S. in Mathematics, GPA: 3.45/4.0

Ho Chi Minh City, Vietnam

June 2019

Thesis title: *Spectrum of a ring.*

Thesis mark: 10/10

Supervisor: Assoc. Prof. My Vinh Quang.

Luong The Vinh Highschool for the Gifted

High School

Dong Nai, Vietnam

2012–2015

Class specialized in Mathematics.

Employment

Florida Atlantic University

Graduate Teaching Assistant

Florida, United States

Aug 2024 – At present

Ho Chi Minh City University of Science

Adjunct Lecturer

Ho Chi Minh City, Vietnam

Feb 2024 – June 2024

Vietquant

Quantitative Researcher

Ho Chi Minh City, Vietnam

Apr 2020 – Oct 2023

Publications

Well-rounded twists of the ring of integers of cyclic cubic fields: with Dat T. Tran, Ha T. N. Tran and David Karpuk, in preparation.

Well-Rounded ideal lattices of cyclic cubic and quartic fields: Communications in Mathematics, October 18, 2023, Volume 31 (2023), Issue 2 (Special issue: Euclidean lattices: theory and applications), with Dat T. Tran and Ha T. N. Tran - <https://cm.episciences.org/12425>.

Well-rounded twists of ideal lattices from imaginary quadratic fields: Journal of Algebra and

Its Applications, with Dat T. Tran and Ha T. N. Tran - <https://arxiv.org/abs/2210.15049>

Seminars and Workshops

August 18–29, 2025 (upcoming): Graduate Workshop on Linear Algebra over Finite Fields & Applications, ICERM, Brown University, USA.

June 16–27, 2025: Rethinking Number Theory 6 (RNT 6) Workshop, Online.

June 3–14, 2024: A CIMPA School on Applied Number Theory, Ho Chi Minh City University of Education.

June 12–22, 2023: SEAMS school on Number Theory and Applications, The Industrial University of Ho Chi Minh City, Vietnam.

February 17–28, 2020: CIMPA Research School on Group Actions in Arithmetic and Geometry, Gadjah Mada University, Indonesia.

September 5–8, 2017: Workshop on Commutative Algebra, Ton Duc Thang University, Ho Chi Minh City, Vietnam.

Projects/Research Experiments

Well-Rounded ideal lattices of biquadratic and pure cubic fields: Jul 2025 - at present, with Dat T. Tran, Morgan Smith, and Ha T. N. Tran.

The exceptional set in Cassels’s theorem on small cyclotomic integers: Jun 2025 - at present, with Kiran Kedlaya and others.

Well-rounded Twists of Lattices in \mathbb{R}^3 : Jul 2023 - June 2025, with Dave Karpuk, Dat T. Tran and Ha T. N. Tran.

Well-rounded ideals of cubic and quartic fields: June 2021 - Apr 2023, with Dat T. Tran and Ha T. N. Tran.

On norm Euclidean tri-quadratic fields: May 2020 - Feb 2021, with Amy Feaver, Dat T. Tran, and Ha T. N. Tran.

Well-rounded twists of quadratic fields: Jan 2020 - June 2020, with Dat T. Tran and Ha T. N. Tran.

Programming Skills

Python:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Sagemath:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
PARI/GP:	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

Awards and Honors

2024: Fully Funded Doctoral Fellowship, Florida Atlantic University

2019: Recognized for academic excellence as one of the top-performing students in the Mathematics Department, Spring Semester, 4th Year, Ho Chi Minh University of Education.

2018: Certificate in Scientific Research, Mathematics Department, Ho Chi Minh University of Education.

2015: Consolation Prize in the High School Mathematics Contest, Dong Nai Province.

2014: 3rd Prize in the Dong Nai High School Mathematical Contest.

2013: 1st Prize in the Dong Nai High School Mathematical Contest.

2011: Xuan Loc District Award for Excellence in Secondary School Mathematics.

Other Activities

2016,2017,2018: 1st Prize in Department's Soccer Contest, Ho Chi Minh University of Education.

2018: Participation in "Run For The Heart" Event, Celadon City, Ho Chi Minh City.

2015: Voluntary Spring Campaign, Ho Chi Minh University of Education.

References

1. **Assoc. Prof. Ha Tran**

Position: Assistant Professor

Affiliation: Mathematics & Physical Sciences, Concordia University of Edmonton

Email: ha.tran@concordia.ab.ca

Telephone: +15879688880

Website: <https://sites.google.com/site/hatrannguyenthanh/home>

2. **Dr. Dung H. Duong**

Position: Senior Lecturer

Affiliation: School of Computing and Information Technology, University of Wollongong

Email: hduong@uow.edu.au

Telephone: +61 242 214 874

Website: <https://sites.google.com/view/dung-duong/home>