

Thái Hoàng Lê

Curriculum Vitae

UCLA Mathematics Department
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*"Nessun maggior dolore che ricordarsi del tempo felice nella
misera" – Dante Alighieri*

Education

- 2005–Present **University of California, Los Angeles, CA**, PhD in Mathematics (expected 2010).
Research interests: Additive and Combinatorial Number Theory. Advisor: Prof. Terence Tao.
- 2004–2005 **University of Paris 6 (Pierre and Marie Curie), Paris, France**.
M.S. in Mathematics (M2 Algèbre et Géométrie).
- 2002–2004 **Ecole Polytechnique, Palaiseau, France**.
B.S. in Mathematics.
- 1999–2001 **Hanoi Pedagogic University, Hanoi, Vietnam**.
Majored in Mathematics.

Academic Visits

- 2008 (August–September) **Mathematical Research Institute, University of California, Berkeley, CA**.
Participant of the program in Ergodic Theory and Additive Combinatorics.
- 2008 (January–March) **Centre de Recerca Matemàtica, Universitat Autònoma de Barcelona, Bellaterra, Spain**.
Participant of the DocCourse in Additive Combinatorics. Supervisor: Prof. Javier Cilleruelo.
- 2005 (March – July) **Computer Science Department, Ecole Normale Supérieure, Paris, France**.
Master's thesis on applications of pairings in Cryptography. Supervisors: Prof. Jacques Stern and Phong Nguyen.
- 2004 (April – July) **Mathematics Department, Universiteit Leiden, Leiden, Netherlands**.
Senior thesis on Mihăilescu's proof of Catalan's conjecture. Supervisor: Prof. Peter Stevenhagen.

Achievements

- 2009–2010 **Dissertation Year Fellowship, UCLA**.
- 2005–2006 and 2008–2009 **Pauley Fellowship, UCLA**.
- 2002–2005 **Scholarship of Ecole Polytechnique, France**.
- 2001 **Honorable mention, Vietnamese Informatics Olympiad for undergraduates**.
- 1999 **Gold Medal, 40th International Mathematical Olympiad, Romania**.
Gold Medal, 11th Asian-Pacific Mathematical Olympiad, Vietnam.
Second prize, Vietnamese Mathematical Olympiad.
- 1998 **Bronze Medal, 39th International Mathematical Olympiad, Taiwan**.
Second prize, Vietnamese Mathematical Olympiad.

Teaching Experiences

- 2007–2008 **Teaching Assistant, Mathematics Department, UCLA**.
Courses taught include:
- Integration and Infinite Series (Math 31B, Fall 2008)

- Analysis (Math 131A, Fall 2007)
 - Combinatorics (Math 113, Spring 2007)
 - Differential and Integral Calculus (Math 31A, Winter 2007)
- 2004–2005 **Tutor**, *Mathematics Department*, Ecole Polytechnique.
Taught Real Analysis, Differential Equations, Theory of Distributions.
- 2003–2004 **Volunteer teaching for poor children**, Massy, France.
- 2000 **Instructor**, *Hanoi Pedagogic University high school*.
Taught students who were preparing for the national olympiad.

Publications

- Sárközy's theorem in function fields, *in preparation*.
- (with Craig Spencer) Difference sets and the irreducibles of $\mathbb{F}_q[t]$, *preprint*.
- Intersective polynomials and the primes, *submitted*.
- Green-Tao theorem in function fields, *submitted*.
- (with J. Cilleruelo) On a question of Sárközy on gaps of product sequences, *Accepted to Israel Journal of Mathematics*.

Talks

- 2009 **Intersective polynomials and the primes**, *AMS Western Sectional Meeting, special session on arithmetic combinatorics*, UC Riverside, CA.
- Intersective polynomials and the primes**, *Integers 2009*, University of West Georgia, Carrollton, GA.
- Additive structures in difference sets** (*after Bergelson-Ruzsa, expository talk*), *Participating Analysis seminar*, UCLA.
- Green-Tao Theorem in function fields**, *Journées Arithmétiques*, Université de St. Etienne, France.
- Green-Tao Theorem in function fields**, *Combinatorial and Additive Number Theory 2009*, CUNY Graduate Center, New York, NY.
- Arithmetic combinatorics in function fields**, *Number Theory seminar*, Universidad Autónoma de Madrid, Spain.
- 2008 **Green-Tao Theorem in function fields**, *Western Number Theory Conference*, Colorado State University, Fort Collins, CO.
- Aspects of Sárközy's theorem** (*expository talk*), *Harmonic Analysis/Ergodic Theory/Additive Combinatorics student seminar*, University of California, Berkeley, CA.
- On a question of Sárközy**, *Combinatorial and Additive Number Theory 2008*, CUNY Graduate Center, New York, NY.
- On a question of Sárközy**, *Centre de Recerca Matemàtica*, Bellaterra, Spain.
- 2007 **The multidimensional Szemerédi Theorem** (*after Furstenberg-Katznelson, 3 expository talks*), *Participating Analysis seminar*, UCLA.

Conferences Attended

- 2009 **Analytical Methods in Combinatorics, Additive Number Theory and Computer Science**, *December 1-4*, IPAM, Los Angeles, CA.
- AMS Western Sectional Meeting**, *November 7-8*, University of California, Riverside, CA.
- Integers 2009**, *October 14-17*, University of West Georgia, Carrollton, GA.
- Probabilistic Techniques and Applications**, *October 5-9*, IPAM, Los Angeles, CA.
- Journées Arithmétiques**, *July 6-10*, Université de St. Etienne, France.
- Activités Additives et Analytiques**, *June 30-July 4*, Université de Lille I, France.

- Combinatorial and Additive Number Theory 2009**, May 26-29, CUNY Graduate Center, New York, NY.
- AMS/MAA Joint Mathematics Meetings**, January 5-8, Washington, DC.
- 2008 **Western Number Theory Conference**, December 15-18, Colorado State University, Fort Collins, CO.
- Discrete Rigidity Phenomena in Additive Combinatorics**, November 3-7, MSRI, Berkeley, CA.
- Introduction to Ergodic Theory and Additive Combinatorics**, August 25-29, MSRI, Berkeley, CA.
- Broader Connections: Ergodic Theory and Additive Combinatorics**, August 21-22, MSRI, Berkeley, CA.
- Canadian Number Theory Association X Meeting**, July 13-18, University of Waterloo, ON, Canada.
- Summer school in Analytic number theory and Diophantine approximation**, June 30-July 11, University of Ottawa, ON, Canada.
- Combinatorial and Additive Number Theory 2008**, May 21-24, CUNY Graduate Center, New York, NY.
- Conference in Harmonic Analysis, Number Theory and Additive Combinatorics**, April 4-13, Fields Institute, Toronto, ON, Canada.
- DocCourse on Additive Combinatorics**, January-March, Centre de Recerca Matemàtica, Bellaterra, Spain.
- 2007 **Mini conference in Arithmetic Combinatorics**, December 11-13, Institute for Advanced Study, Princeton, NJ.
- INTERGERS 2007**, October 24-27, University of West Georgia, Carrollton, GA.
- Summer School on Iwasawa Theory**, August 9-13, McMaster University, Hamilton, ON, Canada.
- Summer School on Dynamical Systems and Number Theory**, July 9-13, Technical University of Graz, Austria.
- 2005 **Parings in Cryptography**, June 12-15, Dublin City University, Ireland.

Languages

Vietnamese	Native language
English	Fluent
French	Fluent
Spanish	Near fluency
Italian	Elementary
German	Elementary
Latin	Elementary

Completed 2-year lower division program in Spanish at UCLA.

Currently taking classes at UCLA.

References *(email addresses removed for web posting)*

Terence Tao	Professor (thesis advisor), UCLA.
Javier Cilleruelo	Professor, Universitat Autònoma de Madrid, Spain.
Ben Green	Professor, University of Cambridge, UK.
Magda Albert	Graduate advisor (teaching letter), UCLA.