

DECHAT SAMART

Department of Mathematics, University of Illinois at Urbana-Champaign, Urbana, IL 61801, USA

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EDUCATION

Texas A&M University

August 2014

Ph.D. Mathematics

Thesis: *Mahler measures of hypergeometric families of Calabi-Yau varieties*

Advisor: Professor Matthew Papanikolas

Chulalongkorn University

March 2008

B.Sc. Mathematics (Honors Program)

EMPLOYMENT

University of Illinois at Urbana-Champaign

September 2014 - August 2017

J.L. Doob Research Assistant Professor

(on leave Spring 2015)

Université de Montréal

January 2015 - June 2015

Postdoctoral Fellow

RESEARCH INTERESTS

Number Theory (Modular forms, Mahler measures, and Special values of L -functions)

PUBLICATIONS

1. S. Ahlgren, N. Andersen and D. Samart, *A polyharmonic Maass form of depth $3/2$ for $SL_2(\mathbb{Z})$* (submitted)
2. S. Ahlgren and D. Samart, *A note on cusp forms as p -adic limits*, *Journal of Number Theory* **168** (2016), 360–373.
3. D. Samart, *Feynman integrals and critical modular L -values*, *Communications in Number Theory and Physics* **10** (2016), no. 1, 133–156.
4. M. Lalin, D. Samart and W. Zudilin, *Further explorations of Boyd's conjectures and a conductor 21 elliptic curve*, *Journal of the London Mathematical Society* (2), **93** (2016), 341–360.
5. D. Samart, *The elliptic trilogarithm and Mahler measures of $K3$ surfaces*, *Forum Mathematicum* **28** (2016), 405–423.
6. D. Samart, *Mahler measures as linear combinations of L -values of multiple modular forms*, *Canadian Journal of Mathematics* **67** (2015), 424–449.
7. M. A. Papanikolas, M. D. Rogers and D. Samart, *The Mahler measure of a Calabi-Yau threefold and special L -values*, *Mathematische Zeitschrift* **276** (2014), 1151–1163.
8. D. Samart, *Three-variable Mahler measures and special values of modular and Dirichlet L -series*, *Ramanujan Journal* **32** (2013), no. 2, 245–268.

TEACHING EXPERIENCE

University of Illinois at Urbana-Champaign

September 2014 - May 2017

Fundamental Mathematics (Fall 14, Fall 15)

Introduction to Differential Equations Plus (Spring 16)*

Elementary Theory of Numbers (Fall 16)*

Abstract Linear Algebra (Spring 17)*

Texas A&M University

September 2009 - August 2014

For All Practical Purposes (Instructor of Record)

Engineering Mathematics III (Recitation)

Engineering Mathematics II, Advanced Calculus (Help session)

(* = ranked as excellent by students)

HONORS, AWARDS, AND SCHOLARSHIPS

L. F. Guseman Prize in Mathematics

April 2013

Given for outstanding research, teaching, and service as a graduate student.

AMS Graduate Student Travel Grant

January 2014

Awarded travel support for attendance at the Joint Mathematics Meetings in Baltimore, MD.

SERVICE

Referee for the Proceedings of the American Mathematical Society, Journal of Number Theory, Women in Numbers (WIN) proceedings, Communications in Number Theory and Physics, International Journal of Number Theory.

Committee Member: one Master's thesis (Burapha University)

Reviewer for the Mathematical Reviews (2014 - Present)

Vice president of the Texas A&M Thai Student Association (2012 - 2013).

TALKS

Invited Talks

Number Theory Seminar, Texas A&M University, March 2016.

Special Talks, Chulalongkorn University, Prince of Songkla University, and Burapha University, June-July 2015.

Regulators, Mahler measures, and special values of L -functions workshop, Centre de recherches mathématiques, February 2015.

AMS Spring Central Sectional Meeting, Texas Tech University, April 2014.

Analytic Number Theory Seminar, Université de Montréal, May 2013.

Algebra and Number Theory Seminar, Emory University, April 2013.

Contributed Talks

UIUC Graduate Student Number Theory Seminar, April 2017.

Number Theory Seminar, University of Illinois at Urbana-Champaign, January 2016.

UIUC Graduate Student Number Theory Seminar, November 2014.

Number Theory Seminar, University of Illinois at Urbana-Champaign, September 2014.

The 28th Automorphic Forms Workshop, Moab, Utah, May 2014.

Graduate Student Organization (GSO) Seminar, Texas A&M University, March 2014.

Number Theory Seminar, Texas A&M University, October 2013.

Texas-Oklahoma Representations and Automorphic forms IV (TORA IV), University of North Texas, March 2013.

The 27th Automorphic Forms Workshop, University College Dublin, Ireland, March 2013.

Number Theory Seminar, Texas A&M University, October 2012.

Midwest Number Theory Conference for Graduate Students and Recent PhDs IX, University of Illinois at Urbana-Champaign, October 2012.

The 1st Annual Mathematics Conference, Chulalongkorn University, Thailand, March 2008.

COMPUTATIONAL EXPERIENCE

Maple, Mathematica, Sage, Magma, PARI/GP