Brandon Hanson

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Education

Ph.D. Mathematics, University of Toronto (under Prof. J. B. Friedlander), 2015 2015.

M.Sc. Mathematics, University of Toronto, 2010.

B.Math. Computer Mathematics, *Highest Honours*, Carleton University, 2009.

Research

Fields of Research Interest

Number theory, combinatorics, harmonic analysis.

Publications

B.Hanson, B. Lund and O. Roche-Newton, *On distinct perpendicular bisectors and pinned distances in finite fields.* To appear in Finite Fields and Applications.

B. Hanson. *Character sums over Bohr sets.* To appear in Canadian Math Bulletin.

B. Hanson. *Capturing forms in dense subsets of finite fields.* Acta Arith. 160 (2013), 277-284.

B. Hanson, D. Panario and D. Thomson. *Swan-like results for binomials and trinomials over finite fields of odd characteristic.* Designs, Codes and Cryptography, 61(3):273283, 2011.

Teaching

Instructor, Pennsylvania State University

Multivariable calculus.

Teaching Assistant, University of Toronto

Linear and abstact algebra, calculus and ordinary differential equations, real and complex analysis, number theory, combinatorics.

Talks

Character sums with various convolutions.

UGA Number Theory Seminar, April 2015.

Georgia Tech Combinatorics Seminar, April 2015.

PSU Number Theory Seminar, March 2015.

Character sums on Bohr sets - IPAM Algebraic Techniques for Combinatorial and Computational Geometry, Seminar series, June 2014.

Multiplicative character sums and the Littlewood problem - IPAM Algebraic Techniques for Combinatorial and Computational Geometry, Culminating workshop, June 2014.

Capturing forms in dense subsets of finite fields - Number Theory Satellite Session, Winter meeting of the CMS, Dec. 2012.

Honors, Awards, & Fellowships

Carleton University

- Dean's List 2005 - 2009
- Entrance Scholarship 2005 - 2009
- Richard J Semple Award 2007 - 2009
- University Medal in Mathematics

University of Toronto

- University of Toronto Fellowship - 2009
- NSERC CGS M - 2010
- Ontario Graduate Scholarship - 2011
- NSERC CGS D - 2012-2014

Miscellaneous

Spoken Languages: English, French.

Programming Languages: C, C++, Java, PHP, JavaScript, Sage.