

Twenty PhDs Awarded in 2007

Twenty PhDs were awarded in mathematics in calendar year 2007.

The recipients, with their advisors and their thesis titles (and their next move if known) are:

- Alfeld, Christopher P. Alfeld** (Advisor: Steffen Lempf), *To Branch or Not to Branch: Branching and Non-branching in the Medvedev Lattice of π_0^1 Classes* (Nemean Networks) .
- Bowman, John D.** (Advisor: Arun Ram), *Finite-Dimensional Modules for the Quantum Affine Algebra $U_q(y)$ and its Borel Subalgebra*.
- Christodouloupoulou, Konstantina** (Advisor: Georgia Benkart), *Whittaker Modules for Heisenberg and Affine Lie Algebras* (University of Windsor (Canada)).
- Deng, Geng** (Advisor: Michael Ferris), *Simulated - Based Optimization*.
- Fang, Ye** (Advisor: Sigurd Angenent), *Precise Asymptotics of Blow-up in the 4D Yang-Mills Head Flow*.
- Funk-Neubauer, Darren R.** (Advisor: Paul Terwilliger), *Tridiagonal Pairs and Their Use in Representation Theory*.
- Garthwaite, Sharon A.** (Advisor: Ken Ono), *On Questions of Congruence and Size for Modular Forms and Maass-Poincare Series*.
- Getz, Jayce R.** (Advisor: Ken Ono), *Intersection Homology of Hilbert Modular Varieties and Quadratic Base Change*.
- Hangelbroek, Thomas C.** (Advisor: Amos Ron), *Thin Plate Spline Approximation* (Texas A&M).
- He, Weiyong** (Advisor: Xiuxiong Chen), *On the Calabi Flow* (University of British-Columbia, Canada).
- Kach, Asher M.** (Advisor: Steffen Lempf), *Characterizing the Computable Structures Boolean Algebras and Linear Orders* (University of Connecticut-Storrs).
- Kane, Benjamin** (Advisor: Tonghai Yang), *Computationally Feasible Bounds for Representations of Integers by Ternary Quadratic Forms and CM Lifts of Supersingular Elliptic Curves*.
- Kim, Ahyoung** (Advisor: Alexander Kiselev), *Locating Absolutely Continuous Spectra of Jacobi Operators*.
- Liao, Xiaomei** (Advisor: Shi Jin), *Computational High Frequency Waves in Heterogeneous Media* (Department of Biostatistics, Harvard University).
- Oberlin, Richard** (Advisor: Andreas Seeger), *The (d, k) Kakeya problem and estimates for the X-ray transform* (UCLA),
- Rose, Michael** (Advisor: Lev Borisov), *On Gromov-Witten Invariants of Stacks*.
- Rouse, Jeremy A.** (Advisor: Ken Ono), *Arithmetic Analytic and Geometric Aspects of the Theory of Modular Forms*.
- Shallue, Andrew R.** (Advisor: Eric Bach), *Two Number Theoretic Algorithms that illustrate the Power and Limitations of Randomness*.
- Wang, Jue** (Advisor: Fabian Waleffe), *On Lower Branch Exact Coherent Structures* (Union College).
- Weber, Brian** (Advisor: Xiuxiong Chen), *Moduli Spaces of Extremal Kohler Manifolds*.

In addition the following students finished with a Masters Degree in mathematics in 2007:

Ulysses Andrews

Jonathan R. Godshall

Blythe Hazellief

Stephen Hruska

Anne Jorstad