DAVID DYNERMAN

Curriculum Vitae

Department of Mathematics
University of Wisconsin - Madison
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EDUCATION

- Ph.D., Mathematics, UW - Madison, expected May 2015. Advisor: Shamgar Gurevich
- M.A., Mathematics, UW - Madison, 2010.
- B.S., Mathematics, Computer Science, Slavic Lang. & Lit., UW - Madison, 2007

PAPERS

1. David Dynerman. "Semi-algebraic Geometry of Common Lines". In: *Research in the Mathematical Sciences* (Accepted.)
2. David Dynerman, Erick Butzlaff, and Julie C. Mitchell. "CUSA and CUDE: GPU-Accelerated Methods for Estimating Solvent Accessible Surface Area and Desolvation". In: *Journal of Computational Biology* 16.4 (Apr. 1, 2009), pp. 523–537

AWARDS

- University of Wisconsin John Nohel prize for outstanding thesis work in Applied Mathematics
- Mathematics Graduate Teaching Award, 2009-2010.
- 2nd Place, Supercomputing 2008 ACM Student Research Competition.
- University of Wisconsin CIBM (computational biology) 3-year fellowship (declined)

TEACHING EXPERIENCE

- TA: Linear Algebra, Honors Linear Algebra; College Geometry; Linear Algebra & Differential equations; Calculus 1, 2, Honors; Analysis. Superior evaluations in seven out of nine semesters.
- Instructor: Introductory Algebra. Superior evaluations.

TALKS

1. UC-Berkeley, Nogales Lab (Structural Biology), Oct. 2014: Describing geometry and symmetry of cryo-EM datasets using algebra.
2. NCSU, Symbolic Computation Seminar, Apr. 2014: Semi-algebraic geometry of common lines.
3. UC-Berkeley, Algebraic Statistics Seminar, Mar. 2014: Semi-algebraic geometry of common lines.
4. Princeton University, IDeAS Seminar, Dec. 2013: Semi-algebraic geometry of common lines.
5. SIAM Conference on Applied Algebraic Geometry, Aug. 2013: The Common Lines Variety.
6. UW-Madison, Group Theory Seminar, 2011: Cryptographic strength in elliptic curve cryptography
7. UW-Madison, Group Theory Seminar, 2010: Equally Partitioned Groups
8. UW-Madison, Group Theory Seminar, 2009: Wielandt's proof on transitive permutation groups of prime degree
9. UW-Madison, Group Theory Seminar, 2009: On A Theorem of Frobenius: Solutions to $x^n = 1$ in Finite Groups

10. ACM/IEEE Supercomputing, 2008: CUSA and CUDE: GPU-Accelerated Methods for Estimating Solvent Accessible Surface Area and Desolvation
11. UW-Madison High School Math Night, October 2008.

LONG TERM PROGRAMS

- MSRI Program Associate, Computational & Applied Algebraic Geometry, Spring 2013.
- IMA Summer Program in Computational & Applied Algebraic Geometry, Summer 2012.
- PCMI Graduate Summer School, Summer 2011.

OUTREACH

- Volunteer Tutor, Madison East High School, 2009 & 2010 school years.
- Organizer, High School Math Night, 2009.

PROFESSIONAL SERVICE

- Organizer: Applied Algebra seminar
- Organizer: UW-Madison Math Department High School Math Night
- Member: UW-Madison Math Department Graduate Program Committee
- Organizer: 2010 Midwest Algebraic Geometry Graduate Student Conference
- Member: American Mathematical Society, Society for Industrial & Applied Mathematics, Association for Women in Mathematics