

CURRICULUM VITAE

Vivek Dhand

Contact Information:

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Education and Employment:

Jun. 2003: S.B. Mathematics, University of Chicago.

Dec. 2007: Ph.D. Mathematics, Northwestern University.

Dec. 2007 - Jun. 2008: Northwestern University, Postdoctoral fellow.

Aug. 2008 - Aug. 2011: Michigan State University, Postdoctoral fellow.

Research:

V. Dhand, *Geometric Langlands duality and Forms of Reductive Groups*. (Thesis)

V. Dhand, *Symmetric chain decomposition of necklace posets*.

V. Dhand, *Tropical decomposition of Young's partition lattice*.

V. Dhand, P. Magyar, *Symmetric chain decompositions and quantum SL_2* . (In progress)

V. Dhand, K. Vilonen, *Quasi-split group schemes and Langlands duality*. (In progress)

Teaching Experience:

2003–2007: Northwestern University Teaching Assistant: Multivariable Calculus, Applied Analysis, Abstract Algebra, Chaotic Dynamical Systems, Differential Geometry, Linear Algebra.

2008–2011: Michigan State University, Postdoctoral fellow.

Discrete Math I (Fall 2008, Spring 2009, Fall 2009, Fall 2010)

Discrete Math II (Spring 2009, Spring 2010)

Abstract Algebra and Number Theory (Summer 2009, Spring 2010, Spring 2011)

Linear Algebra (Fall 2010)

Honors option projects with undergraduate students:

Brandon Long: Dynamics of the squaring map in modular arithmetic.

Lovelesh Chawla: First-order logic and the field with two elements.

Rebecca McCormack: Graph coloring and Sudoku.

Sherwood Wang: Combinatorics of cluster algebras.

Adam Sadjak: Matrices, partitions, and Chomp.

Awards and Honors:

1999-2003: The University of Chicago: Viola Bower Scholarship.

2003: Sigma Xi Honor Society

2004: Northwestern Department of Mathematics: Preliminary Exam Award.

2006: Northwestern Department of Mathematics: Outstanding Teaching Assistant Award.

2006: Top 12 finalist for Northwestern University Presidential Fellowship.

Presentations and Conferences:

Automorphism towers of finite groups and the Euler function. Northwestern Univ. Undergraduate Math. Society, Oct. 2004.

Talbot 2005 workshop: The Geometric Langlands Program.

Galois cohomology of Tannakian categories. Northwestern Univ. Math. Graduate Student Seminar, Mar. 2006.

The classification of real semisimple Lie algebras. Northwestern Univ. Math. Graduate Student Seminar, Jan. 2007.

Local geometric Langlands duality. Northwestern Univ. Math. Graduate Student Seminar, Oct. 2007.

Geometric Langlands duality and forms of reductive groups. Univ. of Maryland Representation Theory Seminar, Dec. 2007.

Algebraic-geometric Derived Categories and Applications: Institute for Advanced Study, Princeton, 2008.

The affine Grassmannian II. Talbot 2008 workshop: Affine Lie algebras and Chiral structures.

The Hydrogen atom. Northwestern Univ. Student Mathematical Physics Seminar, Apr. 2008.

Geometric Langlands duality and forms of reductive groups. Michigan State Univ. Algebra Seminar, Sep. 2008.

Geometry and Physics: Atiyah 80, ICMS, Edinburgh, Apr. 2009.

Topological Field Theories, Northwestern University, May 2009.

The Fibonacci sequence: Melody and Harmony. Albion College Math. Colloquium, Oct. 2009.

Topological quantum field theories and the geometric Langlands program. Department of Mathematics and Statistics, Univ. of Michigan - Dearborn, Colloquium, Apr. 2010.

Fractals in number theory. Albion College Math. Colloquium, Mar. 2011.

Necklaces, partitions, and symmetric chain decomposition. Michigan State Univ. Combinatorics Seminar, Apr. 2011.

Symmetric Chain Decomposition of Necklace Posets. University of Colorado - Boulder, Algebraic Lie Theory Seminar, Oct. 2011.

Topic is Number Theory. Colorado Math Circle, Nov. 2011.