SUJITH VIJAY

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EMPLOYMENT

- 2010-Present: Assistant Professor, School of Mathematics, IISER-TVM.
- 2007-2010: J. L. Doob Research Assistant Professor, UIUC.
- 2001: Summer Intern, CWI Amsterdam.

UNIVERSITY EDUCATION

- 2002-2007: Ph.D. in Mathematics, Rutgers University (Advisor: József Beck).
- 1997-2002: M.Tech (5 Yr. Integrated) in Mathematics & Computing, IIT Delhi.

RESEARCH INTERESTS

♦ Extremal Combinatorics ♦ Partition Regularity ♦ Integer Sequences

TEACHING

- *Combinatorics*: Spring 2008, Fall 2007, Summer 2006
- *Number Theory*: Spring 2009
- *Graph Theory*: Fall 2009
- *Discrete Mathematics*: Fall 2011
- *Programming and Data Structures*: Fall 2011
- *Linear Programming*: Spring 2009, Fall 2008
- *Non-linear Programming*: Fall 2009, Spring 2008
- *Numerical Analysis*: Spring 2011, Summer 2005

PUBLICATIONS

- *On permutations avoiding arithmetic progressions* (with Timothy D. LeSaulnier), Discrete Mathematics 311 (2011), 205-207.
- *The Hales-Jewett number is exponential: game-theoretic consequences* (with József Beck and Wesley Pegden), Analytic Number Theory: Essays in Honour of Klaus Roth, Cambridge University Press (2009), 22-37.
- *On the discrepancy of quasi-progressions*, The Electronic Journal of Combinatorics 15 (2008), #R104, 14pp. (electronic).
- *Eleven Euclidean distances are enough*, Journal of Number Theory 128 (2008), 1655-1661.
- *On a generalization of the coin exchange problem for three variables* (with Amitabha Tripathi), Journal of Integer Sequences 9 (2006), Article 06.4.6, 8pp. (electronic).
- *A short proof of a theorem on degree sets of graphs* (with Amitabha Tripathi), Discrete Applied Mathematics 155 (2007),670-671.
- *On the largest k-primitive subset of* $[1, n]$, Integers 6 (2006), A1, 3pp. (electronic).
- *On the least size of a graph with a given degree set* (with Amitabha Tripathi), Discrete Applied Mathematics 154 (2006), 2530-2536.
- *Dreidel lasts $O(n^2)$ spins* (with Thomas Robinson), Advances in Applied Mathematics 36 (2006), 85-94.
- *Closest approximations to real numbers* (with Amitabha Tripathi), Ars Combinatoria 77 (2005), 3-8.
- *Which two-sorted algebras of naturals and Booleans have a finite basis?* (with Wan Fokkink and Jaco van de Pol), Algebra Universalis 52 (2004), 469-485.
- *A note on a theorem of Erdős and Gallai* (with Amitabha Tripathi), Discrete Mathematics 265 (2003), 417-420.

CONFERENCE, SEMINAR AND EXPOSITORY TALKS

- *Combinatorial Games*, Summer camp for KVPY Fellows, IISER-TVM, June 2011.
- *Quasi-progressions and Generalized van der Waerden numbers*, Combinatorics Seminar, UIUC, March 2009.
- *The Discrepancy of Quasi-progressions*, International Conference on Interdisciplinary Mathematical and Statistical Techniques, University of Memphis, May 2008.
- *The Hales-Jewett Number and Hypercube Tic-tac-toe*, AMS Central Sectional Meeting, DePaul University, October 2007.
- *Eleven Euclidean Distances are Enough*, Discrete Mathematics and Theory of Computing Seminar, Rutgers University, January 2007.
- *Sets of Integers Avoiding Divisibility Relations*, Graduate Student Combinatorics Seminar, Rutgers University, October 2005.
- *Expected Number of Spins in Dreidel*, Experimental Mathematics Seminar, Rutgers University/DIMACS, November 2004.
- *Ramsey Theory*, Mathematics Seminar, St. Joseph's College, Devagiri (University of Calicut), August 2002.

AWARDS AND HONOURS

- List of Teachers Ranked Excellent (UIUC), 2007.
- $25 from Doron Zeilberger for proving the Dreidel Conjecture, 2003.
- Institute Silver Medal (IIT Delhi), 2002.
- Silicon Graphics Systems (India) Scholarship, 2001-2002.
- Mastermind-IITD (Topic: *Summer Olympics from 1896 to 1968*), 2001.
- 3^{rd} Prize, Software Design, TRYST: Intercollegiate Technical Festival, 2001.
- National Talent Search Scholar, 1994.
- 7^{th} Position, Mathematics Talent Search Examination, 1994.
- 3^{rd} Position, National Science Talent Search Examination, 1992.