

Curriculum Vitae

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Thomas J. Tucker

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Education

Harvard University, B.A. in Mathematics, 1991.
University of California at Berkeley, Ph.D. in Mathematics, 1998.

Appointments

University of Georgia, post-doctoral researcher, 1998-2002.
City University of New York Graduate Center, visiting assistant professor,
2002-2004.
University of Rochester, assistant professor, 2004-present.

Papers

- (1) X. Song and T. J. Tucker. “Dirichlet’s Theorem, Vojta’s inequality, and Vojta’s conjecture.” *Compositio Math.* **116** (1999), 219–238.
- (2) X. Song and T. J. Tucker. “Arithmetic discriminants and morphisms of curves.” *Trans. Amer. Math. Soc.* **353** (2001) 1921–1936.
- (3) D. Lorenzini and T. J. Tucker. “Thue equations and the method of Chabauty-Coleman.” *Inventiones Math.* **148** (2002), 47–77.
- (4) T. J. Tucker. “Irreducibility, Brill-Noether loci, and Vojta’s inequality.” *Trans. Amer. Math. Soc.* **354** (2002), 3011–3029.
- (5) A. Granville and T. J. Tucker. “It’s as easy as *abc*.” *Notices Amer. Math. Soc.* **49** (2002), no. 10, 1224–1231.
- (6) P. Cutter, A. Granville, and T. J. Tucker. “The number of fields generated by the square root of a given polynomial.” *Canad. Math. Bull.* **46** (2003), 71–79.
- (7) J. Piñeiro, L. Szpiro, and T. J. Tucker. “Mahler measure for dynamical systems on \mathbf{P}^1 and intersection theory on a singular arithmetic surface.” In, F. Bogomolov and Y. Tschinkel, editors, *Geometric methods in algebra and number theory*, Progress in Math 235, pages 219–250, Birkhäuser, 2004.

- (8) L. Szpiro and T. J. Tucker. “A Shafarevich-Faltings theorem for rational maps.” *Pure Appl. Math. Q.*, to appear.
- (9) L. Szpiro and T. J. Tucker. “One half log discriminant.” In, U. Zannier, editor, *Diophantine geometry proceedings* (Pisa, April-July 2005), pages 323–334, Edizioni della Normale, Pisa, Italy, 2007.
- (10) R. M. Guralnick, T. J. Tucker, and M. E. Zieve. “Exceptional covers and bijections on rational points.” *Int. Math. Res. Not.* (2007) Vol. 2007, article ID rnm004, 19 pages.
- (11) D. Ghioca and T. J. Tucker. “Siegel’s theorem for Drinfeld modules.” *Math. Ann.* **339** (2007), 37–60.
- (12) D. Ghioca and T. J. Tucker. “Equidistribution and integral points for Drinfeld modules.” *Trans. Amer. Math. Soc.*, to appear.
- (13) D. Ghioca and T. J. Tucker. “A dynamical version of the Mordell-Lang conjecture for the additive group.” *Compositio Math.*, to appear.
- (14) D. Ghioca, T. J. Tucker, and M. E. Zieve. “Intersections of polynomial orbits, and a dynamical Mordell-Lang conjecture.” *Inventiones Math.* **171** (2008), 463–483.
- (15) L. Szpiro and T. J. Tucker. “Equidistribution and generalized Mahler measures.” In submission.
- (16) D. Ghioca and T. J. Tucker. “Linearizing maps and orbits of points.” In preparation.
- (17) R. Benedetto, D. Ghioca, P. Kurlberg, T. J. Tucker. “The dynamical Mordell-Lang conjecture.” In submission.
- (18) D. Ghioca, T. J. Tucker, and M. E. Zieve. “Complex polynomials having orbits with infinite intersection.” In preparation.
- (19) D. Ghioca and T. J. Tucker. “A Bogomolov conjecture for lines in the affine plane.” In preparation.
- (20) L. Szpiro and T. J. Tucker. “A symmetry property for canonical heights.” In preparation.
- (21) S.-I. Ih and T. J. Tucker. “A finiteness property for periodic points of Chebyshev polynomials.” In preparation.
- (22) R. Benedetto, D. Ghioca, P. Kurlberg, T. J. Tucker. “A gap principle for polynomial maps.” In preparation.

Grants

National Science Foundation grant DMS-0101636, “Diophantine Equations and Algebraic Points on Curves,” 08/01/01–07/31/04.

National Security Agency grant 06G-067, “Algebraic dynamics on the projective line”, 2006-2008.

Invited Talks

Workshop on Arakelov theory and values of L-Functions, Isaac Newton Institute, Cambridge, England, Summer 1998.

Special session on the interface between diophantine geometry, algebraic geometry, and Nevanlinna theory, American Mathematical Society Meetings, Austin, Texas, Fall 1999.

Workshop on arithmetic geometry, Mathematical Sciences Research Institute, Berkeley, Fall 2000.

Special session on results from the Arizona Winter School, American Mathematical Society Meetings, New Orleans, Spring 2001.

Arithmetic geometry seminar, City University of New York Graduate Center, Spring 2001.

Number theory seminar, University of South Carolina, Spring 2002.

Number theory seminar, University of Illinois at Urbana, Spring 2002.

Number theory seminar, University of Missouri at Columbia, Spring 2002.

Arithmetic geometry seminar, City University of New York Graduate Center, Spring 2002.

Special session on number theory, American Mathematical Society Meetings, Boston, Fall 2002.

Brown VIGRE number theory conference, Providence, Spring 2003.

Number Theory Seminar, University of Montreal, Spring 2003.

Columbia-NYU-CUNY joint number theory seminar, New York, Fall 2003.

Arithmetic geometry seminar, University of Georgia, Spring 2004.

Special session on dynamics of integer sequences and rational maps, American Mathematical Society Meetings, Atlanta, Spring 2005.

Algebraic geometry seminar, Georgia Tech, Spring 2005.

Arithmetic geometry seminar, University of Georgia, Spring 2005.

Program on diophantine geometry, Centro di Ricerca Matematica, Pisa, Italy, Summer 2005.

Columbia-NYU-CUNY joint number theory seminar, New York, Fall 2005.

Number theory seminar, McMaster University, Spring 2006.

Model theory and geometry seminar, Fields Institute, Fall 2006.

Five Colleges number theory seminar, University of Massachusetts, Amherst, Fall 2006.

Special sessions on arithmetic geometry and modular forms, American Mathematical Society Meetings, Hoboken, NJ, Spring 2007.

Number theory seminar, KTH, Stockholm, Summer 2007.

Number theory seminar, City College, New York, Fall 2007.

Palmetto number theory conference (plenary talk), Columbia, South Carolina, Fall 2007.

American Institute of Mathematics workshop on the uniform boundedness conjecture, Spring 2008.

Special session on algebraic dynamics, American Mathematical Society Meetings, San Diego, Spring 2008.

Graduate students under my supervision

Vijay Sookdeo
Justin Sukiennik
Joel Dreibelbis
Kalyani Madhu