

Katherine F. Stevenson

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Education:

B.S., Mount Holyoke College, June 1989. Cum laude in mathematics, minor in economics. Phi Beta Kappa, Sigma Xi. Honors thesis: *Rational Points on Elliptic Curves*

Oxford University, UK, 1987-1988. Visiting student, mathematics.

Ph.D., University of Pennsylvania, May 1994. Mathematics Dept. Dissertation: *Fundamental Groups of Projective Curves in Characteristic p* . Advisor: David Harbater

Employment:

January 2002 - June 2007 Cal. St. Northridge. Current rank: Associate Professor.

Sept. 1998 - Aug. 2001 Caltech. Taussky-Todd Instructor (on leave, UMD).

Aug. 1994 - Aug. 2000 University of Maryland, Assistant Professor.

Visiting positions.

Jan. 2009 - June 2009 University of Padova (sabbatical)

Aug. 1999 - Dec. 1999 MSRI, *Galois groups and fundamental groups*,.

Sept. 1994 - Aug. 1995 CRM-ISM-CICMA Postdoctoral Fellow. Université de Montréal.

August 2000 - August 2001 Pomona College.

March - June 1998 Forschungsinstitut Mathematik (FIM), ETH Zurich.

August - December 1997 University of Southern California.

July 1996 University of Utrecht. Mathematics Dept.

June 1995, 1996 Département de Mathématique, Université de Bordeaux.

Grants and Fellowships:

NSF Grant for Undergraduate Research Project (IIS-0534984) Learning Taxonomies of the Visual World. June 2005-June 2008, \$44,403. Won Sigma Xi undergraduate research award, Spring 2006.

Spring 2005 CSUN College of Science and Math grant for pilot project in bio-mathematics (3 units course release).

Fall 2004 & Fall 2005: CSUN Beck Grant to improve instruction in math 320 (3 units course release).

CSUN research grants: Spring 2005, 2004 & 2003 (3 units course release).

National Security Agency, Young Investigator's Award, (grant # MSPF-01Y-109) "Covers of Curves and Surfaces." April 2002 - April 2004.

National Security Agency, Young Investigator's Award, (grant #98Y157) "Fundamental groups of curves in characteristic p ." Dec. 1998 - Dec. 2000.

National Security Agency, Young Investigator's Award, (grant #96Y118) "Galois Covers of Projective Curves." Dec. 1996 - Dec. 1998.

University of Maryland, Graduate Research Board Summer Research Award: 1996.

Papers: (For pdf files of most of the below please go to <http://www.csun.edu/~kfs4816/research/list.html>)

1. *Normal subgroups of the algebraic fundamental group of affine curves in positive characteristic.* (K. Stevenson, A. Pacheco and P. Zalesskii) *Math. Annalen*, Vol. 343, Issue 2, 463-486.
2. *On quasi-free profinite groups.* (K. Stevenson, L. Ribes and P. Zalesskii) *Proceedings of the American Mathematical Society*. 135 (2007), no. 9, 2669-2676
3. *Local Galois Theory in dimension two.* (K. Stevenson and D. Harbater) *Advances in Mathematics* Vol. 198, Issue 2 (2005) 623-653.
4. *Abhyankar's Local Conjecture on Fundamental Groups.* (K. Stevenson and D. Harbater) *Algebra and Algebraic Geometry with Applications*, Springer-Verlag (2004) 473-486.
5. *Prescribing ramification.* (K. Stevenson and R. Guralnick) *Arithmetic fundamental groups and noncommutative algebra* (Berkeley, CA, 1999), 387-406, *Proc. Sympos. Pure Math.*, **70**, Amer. Math. Soc., Providence, RI, 2002.
6. *Galois modules and the algebraic fundamental group of projective curves in positive characteristic* (K. Stevenson and A. Pacheco) *Pacific J. of Math.* 192 (2000), no. 1, 143-158.
7. *Patching and thickening problems.* (K. Stevenson and D. Harbater) *J. of Algebra*, **212**, (1999) 272-304.
8. *Conditions related to π_1 of projective curves.* *J. of Number Theory*, **69**, No. 1, (1998) 62-79.
9. *Galois groups of projective curves in characteristic p .* *J. of Algebra*. **182** (1996) 777-804.

Invited talks and conferences 2002-2007:

University of Padova, Department of Mathematics, Algebra Seminar, May 28, 2009.

EPFL, Department of Mathematics, Lausanne, Switzerland, Seminar & research visit, May 18-22, 2009.

TU Wien, Department of Mathematics, Austria, Algebra Seminar, April 15, 2009.

Oberwolfach, Germany, Arithmetic of Fields. February 1-7, 2009

WIN: Women in Numbers, BIRS, Banff, Canada, November 2-7, 2008.

MAA Sectional Meeting, Project NEXT invited speaker. October, 2006 & 2007.

AMS Sectional Meeting, SFSU, Special session Arithmetic Geometry. Invited speaker. Apr. 29-30, 2006.

Galois workshop. UPenn. April 24-26. Invited participant.

AMS Sectional Meeting, UNH, Special session Galois theory in arithmetic and geometry. Invited speaker. Apr. 22-23, 2006.

Oberwolfach, Germany, The Arithmetic of Fields. Invited speaker. Feb. 5-11, 2006.

CSUN Faculty Retreat. Speaker on Student Engagement. Jan. 2006.

Colloquium talk, CSUN, February 16, 2005.

Summer Institute in Algebraic Geometry. Participant. Aug. 8-12, 2005

Leiden, The Netherlands. Workshop participant: Automorphisms of curves. August 16-20, 2004.

California Institute of Technology, Dept of Math, Oct 23, 2003.

BIRS, Banff, Canada, Sept 6-13 2003.

UC Irvine, Conference in Arithmetic Geometry, M. Fried organizer, May 2003.

Oberwolfach, Germany, Conference on Fundamental Groups and Galois Theory, July 2002.

Teaching Effectiveness:

Distinguished Teaching Award, CSUN academic year 2007-2008.

College of Science and Mathematics Teaching Award, CSUN academic year 2007-2008.

Coordinate 10-14 sections of Mathematical Methods for Business (Math 103), approx. 500-600 students, in Fall 2006-Fall 2008. Instituted 103L, found external funding, trained all staff: Instructors, GA's and undergraduate business major assistants. Instituted

common, commonly graded final. Coordinated instructors in creating problems sets for webwork, exercises and lecture notes for class hours, and practice problems for final. See course materials at:

<http://www.csun.edu/kfs4816/103/Schedule.html>

Fall 2004 & Fall 2005: CSUN Beck Grant to improve instruction in math 320 (3 units course release). Developed extensive data bank of quizzes and lecture notes all still in use today by other instructors of math 320. See course materials at:

<http://www.csun.edu/kfs4816/320/Schedule.htm>

Designed lecture notes for: Mathematical Methods for Business (Math 103), Calculus (II, III), Linear algebra, Fundamentals of Mathematics (Math 320), Abstract Algebra (Math 460). Available on webpage.

Course Experience: Pre-Calculus, Mathematical Methods for Business (Math 103), Calculus (I, II, III) (Math 150B), Probability, Combinatorics, Fundamentals of Math. (Math 320), Linear Algebra (Math 262), Abstract Algebra (Math 460), Number Theory, Algebraic Geometry, Topics in Algebraic Geometry.

Association of Students and Academics and Research Committee Teaching Award. California Institute of Technology, June 2000.

University Dean's Award For Good Teaching. University of Pennsylvania, June 1991.

Service:

Departmental (2003-2007):

Associate Chair (Fall 2008)

Chair Elections Committee (Spring 2008)

Course Coordinator for Math 103, Math. Methods for Business, (Fall 2006 present)

Grader Coordinator (Spring 2004-June 2007)

Curriculum Committee Chair (Aug. 2004-January 2006).

Assessment Committee member (Spring 2005-June 2007)

Development of syllabi for Fundamentals of Math (math 320) and Algebra I (math 360), and Algebra for high school teachers (math 622)

University (2003-2007):

Panel Member, Beck Grant Panel Discussion, (Fall 2008)

"Learning Habits Project," Academic Affairs, CSUN (2008-present)

Interview Developmental Math faculty candidates (Spring 2006)

Preeminent Scholarly Publication Committee (Spring 2006)

Beck Grant Panel (March 2006)

Faculty participant at Presidents Reception for newly admitted students (Feb. 2006)

Judge CSUN student research competition (Fall 2005)

TNE middle school algebra committee chair. (Academic Yr 2005-2006)

Senate Executive committee (Fall 2004-Spring 2005)

Faculty Senator (Fall 2003-Spring 2005)

Graduation Committee (2003, 2004)

Mathematical Community (2003-2007):

Refereed paper for Pacific Journal of Mathematics (editor: V.S. Varadarajan) Fall 2004

Refereed paper for Canadian Math. Bull., (ed: N. Yui) Spring 2003

Spring 2005: Math lecture at Mayfield Senior School, Pasadena CA.