

# Christina Eubanks-Turner

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## Education

- Ph.D. **University of Nebraska–Lincoln**, Mathematics, May 2008  
**Dissertation Title:** Prime ideals in low-dimensional mixed polynomial/power series rings  
**Advisor:** Sylvia Wiegand
- M.S. **University of Nebraska–Lincoln**, Mathematics, August 2004
- B.S. **Xavier University of Louisiana**, New Orleans, LA, May 2002  
Mathematics; *cum laude*.

## Academic Positions

- 2008–Present **University of Louisiana at Lafayette(ULL)**, Dept. of Mathematics, Assistant Professor
- 2002–2008 **University of Nebraska–Lincoln(UNL)**, Dept. of Mathematics, Graduate Teaching Assistant

## Mathematical Interest

Commutative Algebra with an emphasis in Ring and Module Theory  
Graph Theory  
Math Education focusing on educating K-12 math teachers and mathematical outreach to middle and high school students  
Promoting diversity in the Mathematical Sciences  
Undergraduate teaching and learning

## Teaching Experience

### Instructor

#### **ULL, 2008-Present**

Intro to Graph Theory (MATH 467-special topics course)  
Applied Calculus (MATH 250)  
Applied Calculus(MATH 250-O, online course designer)  
Calculus I (MATH 270)  
Number Theory and Abstract Algebra for High School Teachers (MATH 414)  
Linear Algebra (MATH 462)  
Modern Algebra I (MATH 465)  
Modern Algebra II (MATH 466)

#### **LSU, Louisiana Math and Science Teacher Institute (LAMSTI), Summer 2010**

Pre-Thesis Seminar Instructor (MATH M4999)  
Guest Lecturer in Leadership Seminar (EDCI 6300)

#### **UNL, 2002-2008**

Intermediate Algebra (MATH 100A Instruction supplemented by MathXL)

College Algebra(MATH 101)  
 Mathematics Matters (MATH 300)  
 NU-Teach Institute: Functions of Algebra and Geometry (MATH 802T)

### Other Instructor Positions

*Undergraduate Course and Research Leader*, Lead a group of undergraduates in a summer course and research on Coding Theory at ULL as apart of STAGE program, Summer 2011.

*Graduate Mentor Assistant*, UNL, Co-facilitated algebra problem sessions for pre-graduate students during Intensive Mathematics: a Mentoring, Education, and Research Summer Experience(IMMERSE), Summer 2007.

*Project Fulcrum Teaching Fellow*, Park Middle School, Lincoln, NE, Collaborated with middle school math and science teachers to enhance the mathematics and science curriculum for grades 6-8, Fall 2004-Spring 2005.

## Publications

**C. Eubanks-Turner**, A. Li, *Graphical Properties of the Bipartite Subgraph of  $\text{Spec}(\mathbb{Z}[x])$*  (in preparation).

E. Celikbas, **C. Eubanks-Turner**, S. Wiegand *Prime Ideals of Two-Dimensional Quotients of Mixed Power Series/Polynomial Rings* (in preparation).

**C. Eubanks-Turner**, M. Luckas, and S. Saydam, *Prime ideals in birational extensions of two-dimensional power series rings* (to appear, Communications in Algebra).

E. Celikbas, **C. Eubanks-Turner**, *The Projective Line Over the Integers*, Progress in Commutative Algebra 2, De Gruyter (2012), 221-240.

### Supervised Undergraduate Publications

I. Fene, M. Gonzalez, J. Johnson, K. Pr'Out, *List Decoding Algorithms for Reed-Solomon Codes* (submitted ).

## Grants Awarded

(Lead PI unless noted otherwise)

*MSRI Math Circles Seed Grant*, October 2011, \$2,000

*NSF-DUE-1136417 "The Louisiana Noyce Teaching Fellows/Master Teaching Fellows Planning Project."*, August 2011, \$127,449

*AWM Mentoring Travel Grant*, August 2011, \$3,300

*Louisiana Systemic Initiatives Program "A TEAM (Tactile Experiences with Algebraic Models) Approach to Proficiency in the Middle Grades."* (Co-PI), April 2011, \$259,629

*NSF-DMS-1043223 "Smooth Transition for Advancement to Graduate Education (STAGE) for Underrepresented Minorities in Mathematical Sciences: A Pilot Project."* (Co-PI), February 2011, \$548,880

*CFA-Pugh Family Fund "Acadiana Math Teachers' Circle 2011 Summer Retreat"* January 2011, \$12,000

*ULL Office of Distance and Electronic Learning electronic course design award* October 2010, \$2,500

*Louisiana Board of Regents Travel Grant for Emerging Faculty* April 2010, \$1,200

*Louisiana Board of Regents Travel Grant for Emerging Faculty* January 2009, \$1,200

*ULL Summer Research Grant* Summer 2009, \$4,800

## Presentations

### By Invitation

*Prime Ideals in Quotients of Low-Dimensional Mixed Polynomial/Power Series Rings*, The Consortium for Order in Algebra and Logic, University of Florida, Gainesville, FL, March 6, 2012.

*Making Myself Useful...*, Mathematics Education Seminar, UNL, Lincoln, NE, October 20, 2011.

*Error Detection and Correction*, Center for Undergraduate Research in Mathematics Spring Research Conference, Brigham Young University, Provo, UT, March 18, 2011.

*Mad Veterinarian*, Acadiana Math Teachers' Circle Summer Retreat, Vermillion Conference Center, Lafayette, LA, June 29, 2010.

*Prime Ideals in Birational Extensions of Power Series Rings*, Special Session in Commutative Ring Theory, AMS Spring Sectional Meeting, Macalester College, St. Paul, MN, April 10, 2010.

*Prime Ideals in Low-Dimensional Mixed Polynomial/Power Series Rings*, The Granville-Brown-Hayes Session of Presentations by Recent Doctoral Recipients, The Joint Mathematics Meetings, Washington, D.C., January 7, 2009.

*Prime Ideals in Birational Extensions of Power Series Rings*, Algebra Seminar, ULL, March 2010 (presentation consisted of 4-1hour talks).

### Other Presentations

*Prime Spectra of Birational Extension Rings*, AWM Workshop at the Joint Mathematics Meetings, New Orleans, LA January 9, 2011.

*Prime Ideals in Extensions of Power Series Rings*, Southern Regional Algebra Conference/Lloyd G. Roeling Mathematics Conference, ULL, October 15, 2010.

*Spectacular Skeletons: Prime ideals in rings of power series over the integers*, Poster Presentation, AWM Workshop at the Joint Mathematics Meetings, San Diego, CA, January 9, 2008.

*Spectacular Specs: Prime ideals in rings of power series over the integers*, The NE-SESD MAA Sectional Meeting, Dakota State University, Madison, South Dakota, March 30, 2007.

*Prime Ideals in Birational Extensions of Two-Dimensional Power Series Rings*, Graduate Student Seminar, UNL, March 23, 2007.

*Error-Correcting Codes and their Applications*, Undergraduate Senior Presentation, Xavier University of Louisiana, April 12, 2002.

*Exploring the Cantor Set*, Model Institutions for Excellence-SEM Poster Presentations, Xavier University of Louisiana, April 11, 2001.

## Honors and Awards

*AWM Workshop for Women Graduate Students and Recent PhDs participant*, JMM, New Orleans, LA, January 2011: Selected to give a 20 minute talk.

*LA/MS Section NExT Fellow*, March 2009 – Present: Selected to be a fellow of Section NExT, a professional development program of the MAA for new math faculty.

*Project NExT Fellow*, June 2008 – Present: Selected to be a fellow of Project NExT, a professional development program of the MAA for new math faculty.

*Educational Testing Service (ETS) Visiting Scholar*, Princeton, NJ, June 2008: Selected to participate in a month long program at ETS that examines diversity and fairness issues with some of the ETS testing products.

*AWM Workshop for Women Graduate Students and Recent PhDs participant*, JMM, San Diego, CA, January 2008: Selected to give a poster presentation at the workshop.

*Mentoring Through Critical Transition Points*, UNL Math Dept., January 2006 – August 2006: This annual graduate traineeship is awarded to a fourth- and fifth-year mathematics graduate student at UNL.

*Certificate of Recognition for Contributions to Students*, UNL Teaching Council and Parent's Association; February 5, 2007: This annual award is given to faculty and staff through student nominations.

*Graduate Assistance in Areas of National Need Fellowship*, UNL Math Dept, 2005 – 2006: This federally-funded fellowship is awarded yearly to graduate students studying in academic areas of national need.

*Project-Fulcrum Fellowship*, UNL, 2004 – 2005: This fellowship is offered yearly to 8-15 graduate students at UNL in the fields of science and math through a partnership with Lincoln Public Schools.

*Computer Science, Engineering and Mathematics Scholarship (CSEMS)*, UNL, 2002 – 2004: The scholarship is awarded to high-achieving graduate students.

*Larson Fellowship*, UNL, 2002 – 2004: This fellowship is offered bi-annually to graduate students who add the diversity of the university.

## Service

**Referee**, Journal of Algebra and its Applications.

### Conferences, Seminars and Workshops

*Organizer and Chair*, Special Session on Commutative Algebra, AMS Fall Central Section Meeting , UNL, October 14-16, 2011.

*Panelist*, Center for Undergraduate Research in Mathematics Spring Research Conference, Brigham Young University, Provo, UT, March 19, 2011.

*Organizer*, Southern Regional Algebra Conference/Lloyd G. Roeling Mathematics Conference, ULL, October 15-16, 2010.

*Organizer*, Acadiana Math Teachers' Circle, Lafayette, LA, September 2009-Present.

*Facilitator*, Xavier University Math Science Institute, New Orleans, LA, July 2008.

*Organizer*, Louisiana Noyce Capacity Building Summit, ULL, January 2012.

*Organizer*, Algebra Seminar, ULL, Fall 2011.

*Facilitator*, Math 807T Orientation Workshop, UNL, January 2008.

*Facilitator*, Math 804T Orientation Workshop, UNL, September 2007.

*Panelist*, The Gallup Leadership Summer Institute Graduate Student Panel and Luncheon, Gallup Leadership Summer Institute, UNL, May 2007.

*Panelist*, “Members of the UNL Black Graduate Student Association Share Their Stories”, 30th Annual Big XII Conference on Black Student Government, UNL, February 2007.

*Special Session Organizer*, Nebraska Black Leadership Symposium, UNL, January 2006.

### **Committees and Boards**

*Member*, Online Courses Committee, ULL, August 2010-Present.

*Member*, Graduate Faculty, ULL, September 2008-Present.

*Committee Member*, Math Department Graduate Recruitment Committee, ULL, September 2008-Present.

*Committee Member*, Math Department Math Education Committee, ULL, September 2008-Present.

*Committee Member*, Math Department Search Committee for tenure track position in Analysis, UNL, October 2007-January 2008.

*Board Member*, Graduate Student Advisory Board, UNL, 2005 -2008.

### **Mentoring**

*Mentor*, National Alliance for Doctoral Studies in Mathematics, October 2009-Present.

*Mentor*, Louis Stokes Louisiana Alliance for Minority Participation, ULL, January 2010-Present.

### **Community and other service**

*Grader*, Hands on Exposure to Algebraic Topics (HEAT) middle school math competition, ULL, April 2010.

*Volunteer Coordinator*, Allen J. Celestine Foundation Festival of Virtues, Lafayette, LA, October 2009,2010.

*Tent and Volunteer Coordinator*, Woodvale Elementary School Math Symposium, Lafayette, LA, November 2008.

*Member*, UL Lafayette Black Faculty and Staff Caucus, ULL, September 2008-present.

*Grader*, Math in the Middle Alternate Assessment Project, UNL, May 2007.

*Treasurer*, Black Graduate Student Association UNL, Fall 2006-2008.

## **Meetings Attended**

### **By Invitation**

*Enacting Standards for Mathematical Practices Conference*, Lincoln, NE, October 2011: Sponsored Participant.

*Iowa Mathematical Field of Dreams Conference*, Iowa City, IA, October 2010: Served as Alliance mentor for a participant from ULL.

*MAA PREP Workshop on Inquiry Based Learning*, University of Texas-Austin, May 2010: Sponsored participant of a week long professional enhancement workshop on inquiry based learning.

*How to run a Math Teachers' Circle Workshop hosted by AIM*, MAA Carriage House Conference Center, Washington, D.C. July 27-31, 2009.

*Promoting Diversity at the Graduate Level in Mathematics: a National Forum*, MSRI, October 14-17 2008.

*AWM Workshop*, Joint Mathematics Meetings, San Diego, CA, January 9, 2008.

*Infinite Possibilities Conference*, Spelman College, April 1-2, 2004.

*Negotiating an Ideal Faculty Position Workshop*, Rice University, October 14-16, 2007.

*Summer School in Commutative Algebra*, Snowbird, Utah, June 20-30, 2005.

### **Selected Meetings Attended**

1053rd AMS Regional Meeting, Florida Atlantic University, October 2009.

*LA/MS MAA Sectional Meeting*, Clinton, MS, March 5-7, 2009

*Mathfest*, Madison, WI, July 31-August 2, 2008

*Commutative Algebra: Connections with Algebraic Topology and Representation Theory*, UNL, May 18-22, 2008

*KUMUNU 2007: Commutative Algebra Conference*, UNL, September 2007.

*Communicating Science, Math and Engineering to a Broader Audience Conference*, UNL, April 2007.

*Getting Started as a Successful Grant Writer and Academician*, UNL, March 2007

*Wiegandfest: Nebraska Commutative Algebra Conference*, UNL, May 2005.

*EDGE Symposium and Reunion: Enhancing Diversity in Graduate Education; a mathematics program for women*, Wyndham Hotel Atlanta/Spelman College, June 2004.

## **Memberships in Professional Societies**

American Mathematical Society (AMS)

American Association of University Professors (AAUP)

Association for Women in Mathematics (AWM)

Mathematical Association of America (MAA)

## **Computer Skills**

Operating Systems: Windows, Mac, UNIX

Other: LaTeX, Beamer, Moodle, Blackboard, Blackboard Collaborative, MathXL, WileyPLUS