Christina Eubanks-Turner

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EDUCATION University of Nebraska-Lincoln

> Ph.D., Mathematics, Advisor: Sylvia Wiegand May 2008 M.S., Mathematics August 2004

Xavier University of Louisiana

B.S., Mathematics, cum laude, May 2002

Professional **Assistant Professor** APPOINTMENTS

Aug. 2008 - present Department of Mathematics, University of Louisiana at Lafayette, Lafayette, LA.

Interests Commutative Algebra, Ring and Module Theory, Graph Theory, Undergraduate Teaching and Learning, Mathematics Teacher Education, Mathematics Outreach, Mathemat-

ical Sciences Diversification

TEACHING EXPERIENCE University of Louisiana at Lafayette, Lafayette, LA

Instructor, STAGE Summer Program Jun. 2011, Jun. 2012

Crash Course: Intro to Coding Theory

InstructorAug. 2008 - present

Intro to Graph Theory (special topics course)

Applied Calculus (traditional; online course designer)

Calculus I Calculus II

Number Theory and Abstract Algebra for High School Teachers

Linear Algebra (graduate credit course) Modern Algebra I (graduate credit course) Modern Algebra II (graduate credit course)

Louisiana State University, Baton Rouge, LA

Instructor, Louisiana Math and Science Teacher Institute Jun. 2010 - Jul. 2010

Pre-Thesis Seminar Instructor Leadership Seminar (Guest Lecturer)

University of Nebraska-Lincoln, Lincoln, NE

Instructor, NU Teach Institute

Jul. 2008

Functions of Algebra and Geometry for High School Teachers

Graduate Assistant, Nebraska IMMERSE Jun. 2007 - Aug. 2007

Abstract Algebra

Teaching Fellow, Project Fulcrum Aug. 2004 - May 2005

Middle school math and science curriculum development and implementation

Aug. 2002 - Aug. 2008 Instructor

Intermediate Algebra College Algebra

Mathematics Matters (course for pre-service elementary teachers)

Recitation Instructor Calculus I Calculus II Jul. 2002 - Aug. 2004

Publications

- C. Eubanks-Turner, I. Fene, B. Thibodeaux, The Interlace Polynomial of the Wheel Graph (in preparation).
- **C. Eubanks-Turner**, A. Li, Graphical Properties of the Bipartite Subgraph of $Spec(\mathbb{Z}[x])$ (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, Assessing Student Presentations in an Inquiry-Based Learning Course (to appear, 16th Annual Conference on Research in Undergraduate Mathematics Education proceeding)
- C. Eubanks-Turner, M. Luckas, and S. Saydam, *Prime ideals in Birational Extensions of Two-Dimensional Power Series Rings*, Communications in Algebra (2013), 41: 2, 703-735.
- 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, M. Lennon, K. Pr'Out, *List Decoding Algorithms for Reed-Solomon Codes*, Proceedings of the 2011 Annual National Technical Association Conference, Washington D.C.
- E. Reynoso, B. Thibodeaux, A. Urquiza, A. Wheatley, D. Young, *Division Algorithm Decoding for Reed-Solomon Codes* (in preparation).

Undergraduate Advising

Itelhomme Fene, STAGE Program-Summer 2011, SURE Project-Academic Year 2012-2013

Marlene Gonzalez, Jessica Johnson, Kathinetta Pr'Out, STAGE Program-Summer 2011

Eduardo Reynoso, Amanda Urquiza, Ashley Wheatley, Derek Young, STAGE Program-Summer 2011

Brandy Thibodeaux, STAGE Program-Summer 2011, SURE Project-Academic Year 2012-2013

Grants Awarded

Louisiana Mathematics Masters in the Middle (LaM³) (Co-PI) Jul. 2012 National Science Foundation, DUE-1240054 \$1,868,895

Supervised Undergraduate Research Experiences May 2012 Louisiana Board of Regents (support for two undergraduate researchers) \$8,000

MSRI Math Circles Seed GrantOct. 2011Mathematical Sciences Research Institute\$2,000

Aug. 2002 - Aug. 2004

	The Louisiana Noyce Teaching Fellows/Master Teac Project National Science Foundation, DUE-1136417	ching Fellows Planning Aug. 2011 \$127,449	
	AWM Mentoring Travel Grant Association for Women in Mathematics	Aug. 2011 \$3,300	
	A TEAM (Tactile Experiences with Algebraic Mod ficiency in the Middle Grades) (Co-PI) Louisiana Board of Regents	Approach to Pro- April 2011 \$259,629	
	Smooth Transition for Advancement to Graduate E Underrepresented Minorities in Mathematical Scie (Co-PI) National Science Foundation, DMS-1043223	,	
	Acadiana Math Teachers' Circle 2011 Summer Re Community Foundation of Acadiana - Pugh Family Fund	Jan. 2011 \$12,000	
	Electronic Course Design Grant University of Louisiana at Lafayette	Oct. 2010 \$2,500	
	Travel Grant for Emerging Faculty Louisiana Board of Regents	Apr. 2010 \$1,200	
	Travel Grant for Emerging Faculty Louisiana Board of Regents	Jan. 2009 \$1,200	
	Summer Research Grant University of Louisiana at Lafayette	Jun. 2009 \$4,800	
Honors and Awards	LA/MS Section NExt Fellow Mathematical Association of America	Mar. 2009 - Mar. 2010	
	Project NExT Fellow Mathematical Association of America	Jun. 2008 - Jun. 2010	
	Visiting Scholar Educational Testing Services	Jun. 2008	
	Certificate of Recognition for Contributions to Stu University of Nebraska-Lincoln	ridents Feb. 2007	
	Mentoring Through Critical Transition Points Fellowship Jan. 2006 - Aug. 2006 University of Nebraska-Lincoln		
	Graduate Assistance in Areas of National Need Fellowship Aug. 2005 - Aug. 2006 University of Nebraska-Lincoln		
	Project-Fulcrum Fellowship University of Nebraska-Lincoln	Aug. 2004 - May 2005	
	Computer Science, Engineering and Mathematics Scholarship Aug. 20 - Aug. 2004 University of Nebraska-Lincoln		

Larson Fellowship University of Nebraska-Lincoln Invited Presentations

Graphical Properties of the Bipartite Subgraph of $\operatorname{Spec}(\mathbb{Z}[x])$ Oct. 2012 Special Session on ALgebraic Structures over Commutative Rings, American Mathematical Society Fall Sectional Meeting, Tulane University, New Orleans, LA.

Prime Ideals in Quotients of Low-Dimensional Mixed Polynomial/Power Series Rings Mar. 2012

The Consortium for Order in Algebra and Logic, University of Florida, Gainesville, FL.

Making Myself Useful...

Oct. 2011

Mathematics Education Seminar, University of Nebraska-Lincoln, Lincoln, NE.

Error Detection and Correction

Mar. 2011

Center for Undergraduate Research in Mathematics Spring Research Conference, Brigham Young University, Provo, UT.

Mad Veterinarian

Jun. 2010

Acadiana Math Teachers' Circle Summer Retreat, Lafayette, LA.

Prime Ideals in Birational Extensions of Power Series Rings Apr. 2010 Special Session in Commutative Ring Theory, American Mathematical Society Spring Sectional Meeting, Macalester College, St. Paul, MN.

Prime Ideals in Mixed Polynomial/Power Series Rings Jan. 2009 The Granville-Brown-Hayes Session of Presentations by Recent Doctoral Recipients,

The Joint Mathematics Meetings, Washington, D.C.

Prime Ideals in Birational Extensions of Power Series Rings Mar. 2010 - Apr. 2010

Algebra Seminar, University of Louisiana at Lafayette, Lafayette, LA (presentation consisted of four expository talks).

OTHER PRESENTATIONS

Forming a Math Circle

May 2011

Enhancing Content for Comprehension in Undergraduate Mathematics Workshop, University of Louisiana at Lafayette, Lafayette, LA.

Prime Spectra of Birational Extension Rings

Jan. 201

Association for Women in Mathematics Workshop, Joint Mathematics Meetings, New Orleans, LA.

Prime Ideals in Extensions of Power Series Rings

Oct. 2010

Southern Regional Algebra Conference, University of Louisiana at Lafayette, Lafayette, LA.

Spectacular Skeletons: Prime ideals in rings of power series over the integers Jan. 2008

Association for Women in Mathematics Workshop, Joint Mathematics Meetings, San Diego, CA (Poster Presentation).

Spectacular Specs: Prime ideals of rings over the integers Mar. 2007 Mathematical Association of America Sectional Meeting, Dakota State University, Madison, SD.

Prime Ideals in Birational Extensions of Two-Dimensional Power Series Rings Mar. 2007

Graduate Student Seminar, University of Nebraska-Lincoln, Lincoln, NE.

Dec. 2012

Apr. 2004

INVITED
CONFERENCES &
WORKSHOPS

Combinatorial Commutative Algebra and Applications

Mathematical Sciences Research Institute, Berkeley, CA.

Common Core State Standards Math Training for University Faculty Nov. 2012

University of Louisiana at Lafayette, Lafayette, LA.

IAS/PCMI Workshop for Mentors of Undergraduate Mathematics Research by Minority Students

Jul. 2012

Park City Math Institute, Park City, UT.

Enacting Standards for Mathematical Practices Conference Oct. 2011 University of Nebraska-Lincoln, Lincoln, NE.

Mathematical Field of Dreams Conference
University of Iowa, Iowa City, IA.

Oct. 2010

PREP Workshop on Inquiry Based Learning
May 2010
Mathematical Association of America, University of Texas-Austin, Austin, Texas.

How to run a Math Teachers' Circle Workshop hosted by AIM Jul. 2009 Mathematical Association of America Carriage House Conference Center, Washington, D.C.

Promoting Diversity at the Graduate Level in Mathematics: a National Forum Oct. 2008

Mathematical Sciences Research Institute, Berkeley, CA.

Negotiating an Ideal Faculty Position Workshop Oct. 2007 Rice University, Houston, TX.

Summer School in Commutative Algebra Jun. 2005 Mathematical Sciences Research Institute, Snowbird, UT.

Infinite Possibilities Conference

Professional Service Referee

Journal of Algebra and its Applications

Spelman College, Atlanta, GA.

Conferences, Seminars and Workshops

Panelist Nov. 2012

Alliance Ph.D.'s Tell Their Stories, 2012 Field of Dreams Conference, Phoenix, AZ.

Chair and Organizer Jan. 2012

Louisiana Noyce Capacity Building Summit, University of Louisiana at Lafayette, Lafayette, LA.

Chair and Organizer Oct. 2011

Special Session on Commutative Algebra, American Mathematical Society Fall Central Section Meeting , Lincoln, NE

Panelist Mar. 2011

Center for Undergraduate Research in Mathematics Spring Research Conference, Brigham Young University, Provo, UT. Organizer Oct. 2010

Southern Regional Algebra Conference, University of Louisiana at Lafayette, Lafayette, LA.

Founder and Organizer

Sep. 2009 - Present

Acadiana Math Teachers' Circle, Lafayette, LA.

Facilitator Jul. 2008

Xavier University Math Science Institute, New Orleans, LA.

Panelist May 2007

The Gallup Leadership Summer Institute, University of Nebraska-Lincoln, Lincoln, NE.

Panelist Feb. 2007

30th Annual Big XII Conference on Black Student Government, University of Nebraska-Lincoln, Lincoln, NE.

Organizer Jan. 2006

Special Session on Leadership, Nebraska Black Leadership Symposium, University of Nebraska-Lincoln, Lincoln, NE.

Mentor

Mentor and Undergraduate Research Advisor

Jan. 2010 - Present

Louis Stokes Louisiana Alliance for Minority Participation.

Mentor Oct. 2009 - Present

National Alliance for Doctoral Studies in Mathematics.

UNIVERSITY & DEPARTMENTAL SERVICE

Conferences, Seminars and Workshops

Organizer Aug. 2011 - Dec. 2011

Algebra Seminar, University of Louisiana at Lafayette, Lafayette, LA.

Facilitator Jan. 2008

Math 807T Orientation Workshop, University of Nebraska-Lincoln, Lincoln, NE.

Facilitator Sep. 2007

Math 804T Orientation Workshop, University of Nebraska-Lincoln, Lincoln, NE.

Committees and Boards

Member Aug. 2010 - Present

Math Department Online Courses Committee, University of Louisiana at Lafayette, Lafayette, LA.

Member Aug. 2010 - Present

Community Service Committee, University of Louisiana at Lafayette, Lafayette, LA

Member Sep. 2008 - Present

Graduate Faculty, University of Louisiana at Lafayette, Lafayette, LA.

Committee Member Sep. 2008 - Present

Math Department Graduate Recruitment Committee, University of Louisiana at Lafayette, Lafayette, LA.

Committee Member

Sep. 2008 - Present

Mathematics Education Committee, University of Louisiana at Lafayette, Lafayette, LA.

Committee Member

Oct. 2007 - Jan. 2008

Mathematics Department Search Committee for tenure track position in Analysis, University of Nebraska-Lincoln, Lincoln, NE.

Board Member

Aug. 2005 - May 2008

Graduate Student Advisory Board, University of Nebraska-Lincoln, Lincoln, NE.

COMMUNITY SERVICE

Grader

Apr. 2010

Hands on Exposure to Algebraic Topics (HEAT) middle school math competition, University of Louisiana at Lafayette, Lafayette, LA.

Volunteer Coordinator

Oct. 2009, Oct. 2010

Allen J. Celestine Foundation Festival of Virtues, Lafayette, LA.

Volunteer Coordinator and Tent Leader

Nov. 2008

Woodvale Elementary School Math Symposium, Lafayette, LA.

Member

Sep. 2008 - Present

UL Lafayette Black Faculty and Staff Caucus, University of Louisiana at Lafayette, Lafayette, LA.

Grader May 2007

Math in the Middle Alternate Assessment Project, University of Nebraska-Lincoln, Lincoln, NE.

Treasurer

Aug. 2006 - May 2008

Black Graduate Student Association, University of Nebraska-Lincoln, Lincoln, NE.

Media Coverage

Program/Grant Announcement

ultoday.com

September 9, 2011

Web article announcing the Louisiana Noyce grant: "UL Gets NSF Grant for Math Teacher Training".

USA Today

September 1, 2011

Newspaper article announcing the Louisiana Noyce grant: "Across the USA: Louisiana".

The Daily Advertiser

September 1, 2011

Newspaper article announcing the Louisiana Noyce grant: "Foundation Awards UL Grant to Improve Teacher Preparation".

U.S. Representative Charles Boustany, Jr.'s Website August 31, 2011 Web article announcing the Louisiana Noyce grant: "Boustany Announces National Science Foundation Grant for the University of Louisiana at Lafayette".

La Louisiane

Summer 2011

Magazine article announcing the STAGE grant: "NSF Grant Helps Prepare Students for Graduate School".

MTCircular: The Math Teachers' Circle Network Newsletter Summer 2011

Acadiana Math Teachers' Circle Summer Retreat featured in Calendar Events section.

The Vermillion April 13, 2011

Newspaper article announcing the STAGE grant: "NSF Grant to Help Minorities Survive in Graduate School".

The Advocate March 29, 2011

Newspaper article announcing the STAGE grant: "ULL to Mentor Minorities for Graduate Studies".

U.S. Representative Charles Boustany, Jr.'s Website February 15, 2011 Web article about STAGE grant: "Boustany Announces National Science Foundation Grant for UL Lafayette".

Newsletters

MTCircular: The Math Teachers' Circle Network Newsletter Autumn 2012 Featured in News announcement entitled "Project Led by Christina Eubanks-Turner of Lafayette, Louisiana, Awarded NSF Grant".

@louisiana: University of Louisiana at Lafayette enews June 2012 Grant program featured in the article "Mentors steer students to STEM".

MTCircular: The Math Teachers' Circle Network Newsletter Winter 2012 Interviewed for article "Adding It All Up: Tens ideas for funding your circle".

Math News: A publication of the Department of Mathematics at the University of Nebraska-Lincoln Winter 2011 Featured in the article "Enhancing Math Education".

Professional Memberships & Affiliations

American Mathematical Society (AMS)

American Association of University Professors (AAUP)

Association for Women in Mathematics (AWM)

Mathematical Association of America (MAA)

National Association of Mathematics (NAM)