

Drew Lewis

Department of Mathematics
University of Alabama
Box 870350
Tuscaloosa, AL 35487

Email: dlewis@ua.edu
Homepage: <http://bama.ua.edu/~lewis133/>
Telephone: (205) 348-1975

Education

- 2012** Ph.D. in Mathematics, Washington University in St. Louis
Thesis: *Coordinates Arising from Affine Fibrations*
Advisor: David Wright
- 2008** M.A. in Mathematics, Washington University in St. Louis
- 2006** B.S. in Mathematics, University of Alabama
Minors: Computer Science, Italian
Honors: *Summa Cum Laude*, Computer Based Honors

Professional Experience

- 2012-** Assistant Professor, University of Alabama
- 2007-2012** Graduate Teaching Assistant, Washington University in St. Louis

Publications

1. (with Eric Edo) *Some families of polynomial automorphisms III*, Journal of Pure and Applied Algebra (2014)
2. *Strongly residual coordinates over $A[x]$* , Automorphisms in Birational and Affine Geometry, Springer Proceedings in Mathematics and Statistics, 79 (2014).
3. *Vénéreau-type polynomials as potential counterexamples*, Journal of Pure and Applied Algebra, 217, no. 5 (2013), 956-957.
4. (with Charles R. Johnson and YuLin Zhang) *Arbitrariness of Jordan structure in factorization: The geometric multiplicity restriction and the 3-by-3 case*, Asian-European Journal of Mathematics, 5, no. 3 (2012), 1250036.
5. (with Charles R. Johnson and YuLin Zhang) *Further geometric restrictions on Jordan structure in matrix factorization*, Asian-European Journal of Mathematics, 5, no. 2 (2012), 1250018.

Fellowships and Honors

Robert McDowell Teaching Award, Washington University, 2011
Dissertation Fellowship, Washington University, 2011
Research Fellowship, Washington University, 2009
University Fellowship, Washington University, 2006
B.B. Comer Mathematics Prize, University of Alabama, 2006

Talks

Conferences and colloquia

Some polydegree properties of automorphisms of the plane, invited talk at International Conference on Affine Algebraic Geometry and the Jacobian Conjecture, Chern Institute of Mathematics, Tianjin, China, 7/25/14

Strongly residual coordinates, Southern Regional Algebra Conference, 3/16/13
Affine fibrations and Vénéreau-type polynomials, AMS Contributed Paper Session on Algebraic Geometry,
 Joint Mathematics Meetings, 1/6/12
Coordinates and coordinate-like polynomials, Radboud University Nijmegen, 11/30/11
A note on the Vénéreau polynomials, Special Session on Algebraic Group Actions on Affine Varieties, AMS
 Fall 2010 Central Section Meeting, 11/7/10

Seminars

An Introduction to the Jacobian Conjecture, Graduate seminar 9/3/14
Open problems in affine algebraic geometry, Pi Mu Epsilon undergraduate seminar, 11/9/13
The embedding problem, Algebra and Topology Seminar, 10/15/12
The Bass-Connell-Wright reduction of the Jacobian conjecture, Algebra and Topology Seminar, 10/1/12
Polynomial automorphisms, tame and wild, Graduate Seminar, 9/26/12
Locally nilpotent derivations, Algebra and Topology Seminar, 9/24/12
Some problems in affine algebraic geometry, Algebra and Topology Seminar, 9/10/12
The Quillen-Suslin theorem, Graduate Organized Talks Seminar, 6/20/12
Coordinates and coordinate-like polynomials, Algebraic Geometry Seminar, 12/9/11
What is a Cohen-Macaulay poset?, Combinatorics Seminar, 12/8/11
Identifying coordinates, Graduate Organized Talks Seminar, 7/13/11
Relating the Jacobian conjecture to a problem in combinatorics, Combinatorics Seminar, 3/31/11
Locally nilpotent derivations and polynomial automorphisms, Graduate Organized Talks Seminar, 4/20/09
Tame and wild automorphisms in 2 and 3 variables, Graduate Organized Talks Seminar, 10/6/08

Conferences and Workshops Attended

International Conference on Affine Algebraic Geometry and the Jacobian Conjecture, Chern Institute of
 Mathematics, Tianjin, China, July 2014
 Southern Regional Algebra Conference, Southeastern Louisiana University, March 2013
 Groups of Automorphisms in Birational and Affine Geometry, Levico Terme, Italy, November 2012
 Joint Mathematics Meetings, Boston, January 2012
 Oberwolfach Seminar on Affine Algebraic Geometry and Group Actions, Mathematisches Forschungsinstitut
 Oberwolfach, Germany, November 2011
 AMS Central Section Meeting, University of Notre Dame, Fall 2010
 AMS Central Section Meeting, Western Michigan University, Fall 2008
 NSF REU, College of William and Mary, Summer 2005
 NSF REU, College of William and Mary, Summer 2004

Teaching

University of Alabama

Math 125, Calculus I (2 times)
 Math 237, Introduction to Linear Algebra
 Math 247, Honors Calculus III (2 times)
 Math 470, Principles of Modern Algebra I

Washington University

M1011, Introduction to Statistics (2 times)
 M217, Differential Equations
 M233, Calculus III

Graduate Research Mentoring

Dissertation Chair

Kaitlyn Perry, Ph.D. expected 2016

Undergraduate Research Mentoring

Computer Based Honors Projects

Nathan Holmes, 2012-2013