

**CURRICULUM VITAE**  
**CHANTEL C. BLACKBURN**  
Revised November 2011

**PERSONAL**

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**EDUCATION**

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Ph.D., Mathematics, University of Arizona, Tucson, AZ, **Projected May 2013** (MKT for elementary math)  
M.S., Mathematics, University of Arizona, Tucson, AZ, May 16, 2009 (computational group theory)  
B.S., Mathematics, Andrews University, Berrien Springs, MI, May 7, 2006

**ADVISORS**

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**Doctoral Advisor:** Rebecca McGraw, Professor of Mathematics, University of Arizona, Tucson, AZ, 2009-Present  
**Master's Thesis Advisor:** Klaus M. Lux, Professor of Mathematics, University of Arizona, Tucson, AZ, 2008-2009  
**Undergraduate Academic Advisor:** Lynelle M. Weldon, Professor of Mathematics, Andrews University, Berrien Springs, MI, 2002-2006  
**Grand Valley State University REU Advisor:** Steven Schlicker, Professor of Mathematics, Grand Valley State University, Allendale, MI, June 2005-August 2005  
**Honors Thesis / Research Advisor:** Shandelle M. Henson, Professor of Mathematics, Andrews University, Berrien Springs, MI, 2004-2006  
**Honors Thesis Advisor:** James L. Hayward, Professor of Biology, Andrews University, Berrien Springs, MI, 2004-2005  
**Honors Thesis Advisor:** J. M. Cushing, Professor of Mathematics, University of Arizona, Tucson, AZ, 2004-2005

**PROFESSIONAL PUBLICATIONS**

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- Blackburn, C. C. (2011). Toward the identification of mathematical horizon knowledge of place value concepts. In L. R. Wiest, & T. Lamberg (Ed.), *Proceedings of the 33rd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1630-1637). Reno, Nevada.
- Prasad, P. V., McGraw, R., & Blackburn, C. C. (2011). Integrating content and pedagogy in secondary teacher preparation: Collaborating across the disciplinary boundaries of mathematics and mathematics education. In L. R. Wiest, & T. Lamberg (Ed.), *Proceedings of the 33rd Annual Meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education* (pp. 1476-1484). Reno, Nevada.
- Blackburn, C. C., Lund, K., Schlicker, S., Sigmon, P., & Zupan, A. (2009). A missing prime configuration in the Hausdorff metric geometry. *Journal of Geometry*, 92, 28-59.
- Cushing, J. M., Henson, S. M., & Blackburn, C. C. (2007). Multiple mixed-type attractors in a competition model. *Journal of Biological Dynamics*, 1, 347-362.

## THESES

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- Blackburn, C. C. (2009). *An application of the computer algebra system GAP: The construction of the simple modules of a finite group* (Unpublished master's thesis). University of Arizona, Tucson, AZ.
- Blackburn, C. C. (2005). *Competitive coexistence in the Ricker competition model* (Unpublished undergraduate senior honors thesis). Andrews University, Berrien Springs, MI.

## POSTERS/PRESENTATIONS AND PROFESSIONAL TALKS

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- Blackburn, C. C. (2011, June). "Why bother with math, anyway? Getting mathematics back into math education", Meeting of The Hillsboro Oregon Rotary Club, Hillsboro, OR.
- Blackburn, C. C. (2011, June). "Preservice teachers' specialized mathematics knowledge for teaching", Science and Mathematics Teacher Imperative 2011 National Conference, Poster Session, Portland, OR.
- Blackburn, C. C. (2011, April). "From UA to AU: Tales of a mathematics (emphasis in mathematics education) graduate student", Colloquium, Department of Mathematics, Andrews University, Berrien Springs, MI.
- Blackburn, C. C. (2011, April). "If mathematics is supposed to be fun, then what is missing from mathematics education?", TLC Conference Keynote Address, Department of Teaching, Learning & Curriculum, Andrews University, Berrien Springs, MI.
- Blackburn, C. C. (2011, February). "Beyond Bridging: A new vision for teacher preparation in mathematics and science", Second Teaching, Learning and Sociocultural Studies Graduate Student Colloquy, University of Arizona, Tucson, AZ.
- McGraw, R., & Blackburn, C. C. (2011, January). "Teaching mathematics to future teachers: Connecting mathematics to aspects of teaching in university courses", American Mathematical Society (AMS) Special Session on Mathematics and Education Reform, AMS/Mathematical Association of America (MAA) Joint Mathematics Meetings, New Orleans, LA.
- Bishop, M., Blackburn, C. C., & Piercey, V. (2010, October). "G-TEAMS: Graduate Students and Teachers Engaging in Mathematical Sciences", 2010 NSF GK-12 Rocky Mountain Regional Conference, Poster Session, Denver, CO.
- Blackburn, C. C. (2010, March). "Using Mathematics to Describe our World: Algebra, Geometry, Analysis", Sonya Kovalevsky Day, University of Arizona, Tucson, AZ.
- Blackburn, C. C. (2010, March). "Schools as Factories, Industrial Notions of Standards: Outdated in Technological Society", Mathematics Education Graduate Student Colloquium, Tucson, AZ.
- Blackburn, C. C. (2010, February). "Schools as Factories, Industrial Notions of Standardization: Outdated in a Technological Society", First Teaching, Learning and Sociocultural Studies Graduate Student Colloquy, University of Arizona, Tucson, AZ.
- Bailey, B., Blackburn, C. C., & Piercey, V. (2010, February). "G-TEAMS", NSF GK-12 Special Focus Meeting on The Role of Graduate STEM Fellows in K-12 Education", AAAS Annual Meeting, Poster Session: Graduate STEM Fellows in K-12 Education, San Diego, CA.
- Blackburn, C. C. (2009, April). "Constructing the simple representation modules of finite groups using GAP", The Grad Student Math Colloquium...at the U of A, Department of Mathematics, University of Arizona, Tucson, AZ.
- Blackburn, C. C. (2007, May). "Mysterious 19 and the Hausdorff Metric Geometry", Michigan MAA & MichMATYC 2006 Annual Meeting, Grand Rapids, MI.
- Blackburn, C. C. (2007, March). "The Hausdorff Metric Geometry: 19 is Just...Missing!", The Grad Student Math Colloquium...at the U of A, Department of Mathematics, University of Arizona, Tucson, AZ.
- Blackburn, C. C. (2006, April). "Mysterious 19 and the Hausdorff Metric Geometry", AMS Sectional Meeting, Notre Dame, IN.

- Blackburn, C. C. (2005, September). “Mysterious 19 and the Hausdorff Metric Geometry (...And Some Graph Theory)”, Colloquium, Department of Mathematics, Andrews University, Berrien Springs, MI.
- Blackburn, C. C. (2005, August). “Mysterious 19 and the Hausdorff Metric Geometry”, MathFest Pi Mu Epsilon Student Sessions, Albuquerque, NM.
- Blackburn, C. C. (2005, July). “Mysterious 19 and the Hausdorff Metric Geometry”, Michigan Mathematics REU Conference, Grand Rapids, MI.
- Blackburn, C. C. (2005, April). “Investigating the Ricker Competition Model for Competitive Coexistence”, (Honors Thesis), Interdisciplinary Honors Seminar, Andrews University, Berrien Springs, MI.
- Henson, S. M., & Blackburn, C. C. (2005, April). “Coexistence in a Ricker Competition Model”, AMS Sectional Meeting, Lubbock, TX.
- Blackburn, C. C. (2005, March). “Investigating the Ricker Competition Model for Competitive Coexistence”, Colloquium, Department of Mathematics, Andrews University, Berrien Springs, MI.
- Blackburn, C. C. (2005, March). “Competitive Coexistence in a Competition Model”, Honors Project Poster Session, Andrews University, Berrien Springs, MI.
- Blackburn, C. C. (2004, September). “Basic Proof Writing Methods and Group Proof Writing Competition”, Colloquium with Kami Lizarraga (Andrews University), Department of Mathematics, Andrews University, Berrien Springs, MI.
- Blackburn, C. C. (2003, November). “May’s Hypothesis in Ecology”, Colloquium, Department of Mathematics, Andrews University, Berrien Springs, MI.

## RESEARCH

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- Research Assistant.** (January 2011-Present). *Beyond Bridging: Co-Education of Preservice and Inservice Elementary Teachers In Science and Mathematics*, National Science Foundation DRL grant (#1019860, PI Bruce Johnson, Maggie Shafer, Katrina Mangin), University of Arizona, Tucson, AZ.
- Research Assistant.** (August 2010-Present). *Untangling Mathematical KnoTSS (Knowledge for Teaching Secondary School): An Investigation of Collaborations Between Mathematicians and Mathematics Educators*, National Science Foundation DRL grant (#0821996, PI Rebecca McGraw), University of Arizona, Tucson, AZ.
- National Science Foundation Fellow.** Graduate Students and Teachers Engaging in Mathematical Sciences (G-TEAMS) Fellow, (May 2009-May 2011). National Science Foundation DGE grant (#0841234, PI Jocelyn Lega), University of Arizona, Tucson, AZ.
- National Science Foundation REU.** (January 2006-May 2006). Andrews University, Berrien Springs, MI.
- Undergraduate Research Assistant.** (January 2004-May 2006). Andrews University, Berrien Springs, MI.
- National Science Foundation REU.** (June 2005-August 2005). Grand Valley State University, Allendale, MI.

## TEACHING

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- Graduate Teaching Assistant, Department of Mathematics, University of Arizona, August 2006-Current
  - Understanding Elementary Mathematics (A) (Spring 2009)
  - Calculus I (Fall 2008)
  - Calculus Preparation (Fall 2007, Spring 2008)
  - Trigonometry (Fall 2006, Spring 2007, Summer Pre-session 2007)
- Teaching Assistant
  - Super-TA, Formal Mathematical Reasoning and Writing (Spring 2008)
  - Calculus I recitation teacher, Andrews University, January 2004-May 2006
- Contract Instructor, Department of Mathematics, Andrews University, June 2006-July 2006
  - Reasoning With Functions (General Education Math)

- Substitute Teaching, Andrews University, approximately 10 classes within 2005-2006
  - Calculus II, Differential Equations, Elementary Statistics, Precalculus (for Dr. Ronald Johnson)
  - Calculus I, and Differential Equations (for Dr. Shandelle Henson)
- Calculus I recitation teacher, Andrews University, January 2004-May 2006
- Lab assistant for remedial math course, Andrews University, August 2002-May 2006
- Math Center tutor, Andrews University, August 2002-May 2003

## OTHER

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- Mathematical Consultant for Online Course Development, John Wiley & Sons, Inc., August 2007
- Textbook\* Development Assistant, Donald Rhoads, May 2003-June 2005
  - \*Rhoads, Donald H., and L. M. Weldon, Version 3.1, June 2005. *Logic and Functions*.

## OUTREACH

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- Professional Development Presentation, (2010, December). Safford Middle School, Tucson, AZ.
  - Introduced middle school mathematics teachers to calculus ideas and connections to middle school mathematics
- Blackburn, C. C., & Kaldman, L. (2011, February). “G-TEAMS at Safford Middle School”, Poster Session: UA GK-12 Showcase, University of Arizona, Tucson, AZ.
- Sonia Kovalevsky Day Workshop Presenter (2008, 2010, 2011). Department of Mathematics, University of Arizona, Tucson, AZ.
  - Designed and conducted workshop, including creating manipulatives and handouts, geared toward promoting mathematics to high school girls
- Blackburn, C. C., & Liston, J. (2010, February). “G-TEAMS at Cholla High Magnet School”, Poster Session: 3<sup>rd</sup> Annual BioMeet Showcase, University of Arizona, Tucson, AZ.

## HONOR/PROFESSIONAL SOCIETIES

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- Phi Kappa Phi (National)
- Pi Mu Epsilon (Mathematics)
- Sigma Pi Sigma (Physics)
- American Mathematical Society

## SPECIAL RECOGNITION

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- Outstanding Graduate Teaching Assistant for Fall 2008, Department of Mathematics, University of Arizona, 2009
- Distinguished Undergraduate Scholar, Department of Mathematics, Andrews University, 2006
- Nominated for the 2006 Graduate Fellowship Competition of The Honor Society of Phi Kappa Phi, Andrews University, 2006
- Council on Undergraduate Research Best Pi Mu Epsilon Student Research Talk, MathFest 2005, Albuquerque, New Mexico
- President of Andrews University chapter of Pi Mu Epsilon, 2005-2006
- Math President of eigen\* (Math and Physics club), Andrews University, 2004-2006
- Undergraduate Research Award, Andrews University, 2005
- Vice-President of Andrews University chapter of Pi Mu Epsilon, 2004-2005
- Math VP of eigen\* (Math and Physics club), Andrews University, 2003-2004