

CINDY MARIE PHILLIPS

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EDUCATION

University of Arizona Tucson, AZ • Master's of Science in Mathematics, May 2012
Cumulative GPA: 3.5/4.00

Thesis Topic • A study of the structure of the group of equivariant meromorphic functions on a Riemann surface with an antiholomorphic reflection symmetry.

Georgia Institute of Technology Atlanta, GA • Bachelor's of Science in Applied Mathematics, December 2008
Cumulative GPA: 3.73/4.00

RESEARCH EXPERIENCE

University of Arizona Mathematics Department (August 2010, Present)

Graduate Research

- **Master's Thesis**, Advisor: Doug Pickrell, A study of the structure of the group of equivariant meromorphic functions on a Riemann surface with an antiholomorphic reflection symmetry.

Relevant areas of mathematics: Complex Analysis, Differential Geometry, and Exact Sequences from Algebra.

Possible Applications: Quantum Mechanics.

- **Research Tutorial Group**, Advisor: Andrea Young, Combinatorial Manifolds: Bonnet-Myers Theorem.

Relevant areas of mathematics: Combinatorics and Graph Theory, Differential Geometry, and Algebraic Topology.

Possible Applications: Computer Graphics, Triangulations, Graphs, and Nodes.

Georgia Institute of Technology (2007, 2008)

Undergraduate Research

- **Complex Hyperbolic Geometry Research**, Advisor: Igor Belegardek, Complex Hyperbolic Plane in Cylindrical Coordinates about the Hyperbolic Plane.

Relevant areas of mathematics: Hyperbolic Geometry, Matrix Groups, and Complex Analysis.

Possible Applications: Physics.

- **Math and Music Research**, Advisor: Tom Morley, Created Mathematica program capable of producing Irish Jigs based on data of actual Irish Jigs using Markov Chains.

Relevant areas of mathematics: Stochastic Processes (Markov Chains).

Possible Applications: Music, Markov Chain Processes, Programming.

TEACHING EXPERIENCE

University of Arizona (August 2009-Present)

Graduate Teaching Assistant

- Instructor of Calculus Fall 2011: Conducted all lectures for course, tutored students during office hours, wrote exam, graded homeworks and exams.
- Super TA for Introduction to Proofs course Spring 2011: Conducted a weekly problem session and provided supplementary individual tutoring in an office hour.
- Instructor of College Algebra Spring 2010 and Fall 2010: Conducted all lectures for course, tutored students during office hours, wrote exam, graded homeworks and exams.
- Team TA: Conducted six lectures, observed instructor, wrote exam, and graded for College Algebra Fall 2009.

Mathnasium of Marana (April 2011-Present)

Math Tutor

- Simultaneous tutoring of students in grades 1-12 on basic math skill weaknesses and homework.

Baldwin High School (February 2009 - May 2009)

Afterschool Contract Tutor

- Tutored various levels of algebra and geometry to high school freshmen and seniors.

John Milledge Academy and Georgia Military College Prep School (January 2009-February 2009)

Substitute Teacher

- Substituted for Middle School Mathematics and Science classes.

Self-Employed (January 2009- May 2009)

Private Tutor

- High School Geometry student with vision issue
- College Level Math Modeling non-traditional student
- Two Precalculus college students
- Multiple Calculus I and II College students.

Georgia Institute of Technology (August 2006-December 2008)

Undergraduate Teaching Assistant

- Recitation Section Teacher for Calculus I
- Conducted Recitation classes using lecture and group work styles.
- Answered questions and helped students solve problems during office hours.
- Assisted in grading and proctoring of exams
- Tutored students from any class with questions from 100-200 level mathematics courses in tutoring room.

Georgia College & State University (July 2007)

Bridge Program Math Tutor

- Tutored potential college freshmen with a weakness in mathematics who were earning their chance to continue studying at the university as students.

John Hopkins University Center for Talented Youth (CTY) Program (June 2005)

INDE Teaching Assistant

- Inductive and Deductive Reasoning (INDE) Teaching Assistant
- Assisted lead instructor with the planning and conducting of creative math activities for 4th and 5th graders.
- Led the students across the college campus safely from academic activities to entertainment activities.

Service

- Co-Founder and member of Georgia Tech Math Club, Club Math
- Pi Mu Epsilon's High School Mathematics Competition Volunteer and Coordinator 2005-2008.

Conference Attendance

- Park City Mathematics Institute 2008: Algebraic Geometry

Seminar/Colloquium Talks

Friday April 17, 2009 3:30pm, Georgia College State University Mathematics Department Seminars, Hyperbolic Geometry REU

Wednesday October 7, 2009 12:00pm, University of Arizona Mathematics Department Graduate Student Colloquium, Hyperbolic Geometry REU

Thursday December 9, 2010 12:30pm, University of Arizona Mathematics Department RTG Seminar, Combinatorial Manifolds RTG

Computer Skills

- L^AT_EX, Word, Excel, PowerPoint.
- Some Experience with Python, Java, Mathematica, MatLab, Beamer.
- Geometric Algorithms-Course In Progress

Other Jobs and Experiences

- Office Assistant for a State Farm Insurance Agent, May 2006-July 2006.
- Assisted Cartoonist with children at Allied Arts Day Camp June 2005.
- Building Preparation/Secretarial work for GT Piano Competition.
- Volunteering: Habitat for Humanity, Prison Family Luncheons, Food Banks, Church Youth, Boys and Girls Club.