Elizabeth E Leyton Chisholm

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EDUCATION

UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Ph.D. in progress, Mathematics, 4.0, expected 2015

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

Master of Science, Mathematics with distinction, 4.0, May 2009

Bachelor of Science, Applied Mathematics summa cum laude, 3.97, Aug 2007

RESEARCH EXPERIENCE

UNIVERSITY OF CALIFORNIA, SANTA BARBARA PhD PROJECT, Sep 2010 - present

- Investigated properties of a representation of the braid groups to develop a new proof that braid groups are linear.
- Used Python and Mathematica to develop code to analyze braid group data.
- Used code to implement conjectures about the group representation to confirm their validity.

RESEARCH EXPERIENCE FOR UNDERGRADUATES, CalTech, June 2007 - Aug 2007

• Used Excel to analyze and investigate congruence properties of class numbers of binary quadratic forms.

RESEARCH EXPERIENCE FOR UNDERGRADUATES, CSUN, Nov 2006 - May 2007

- Analyzed images of biomedical particles using MATLAB.
- Implemented algorithms to recognize particles based on qualitative data.

TEACHING EXPERIENCE

TEACHING ASSISTANT/ASSOCIATE, UCSB, July 2010 - present

- Plan and instruct weekly sections to supplement undergraduate mathematics courses at UCSB for upper and lower division courses.
- Instructor of record for three math courses at UCSB: Differential Calculus, Integral Calculus for the Social Sciences, and Differential Equations.

INSTRUCTOR, SANTA BARBARA BUSINESS COLLEGE, Fall 2011

• Instructor of record for elementary and intermediate algebra.

TEACHING ASSOCIATE, CSUN, Aug 2008 - May 2009

- Instructor for a math fundamentals course designed for liberal arts majors.
- Tutored undergraduate students in the math lab.

NSF GK-12 FELLOW, CSUN, Aug 2007 - June 2008

• Developed advanced math lessons for middle school classrooms and implemented them in local schools.

SUPPLEMENTAL INSTRUCTOR, CSUN, Jan 2006 - May 2006

• Instructed twice weekly sections to supplement the college algebra course.

FELLOWSHIPS, AWARDS and HONORS

Outstanding Teaching Assistant, UCSB, June 2014

Raymond L. Wilder Award: Outstanding First Year Graduate Student, UCSB, June 2010

Ralph M. Parsons Fellowship, UCSB, Fall 2009 - Spring 2014

Outstanding Graduating Master's Student in Mathematics, CSUN, May 2009

NSF GK-12 Fellowship, CSUN, Fall 2007 - Spring 2008

Outstanding Graduating Senior in Mathematics, CSUN, May 2007

NSF MCTP Grant, CSUN, Spring 2006 - Spring 2007