

# Joseph Timmer

University of Colorado, Boulder  
Campus Box 395  
Boulder, Colorado 80309-0395

joseph.timmer@colorado.edu

## Research Interests

- Non-commutative Algebra, in particular Hopf Algebras
- Representation Theory
- Theory of Finite Groups

## Employment

- **University of Colorado, Boulder** *Instructor*  
Aug. 2016 - Present
- **University of Colorado, Boulder** *Lecturer*  
Aug. 2015 - Aug. 2016
- **Louisiana State University** *Research Associate*  
Aug. 2014 - May 2015
- **University of Southern California** *Research Assistant*  
Jan. 2014 - July 2014
- **University of Southern California** *Teaching Assistant*  
Aug. 2008 - Jan. 2014
- **Michigan State University** *Teaching Assistant*  
Aug. 2005 - Aug. 2008

## Education

- **University of Southern California** *PhD Pure Mathematics*  
– Advisor: *Susan Montgomery* 2014  
– Title: *Indicators of Bismash Products from Exact Symmetric Group Factorizations*
- **Michigan State University** *MSc Mathematics*  
2007
- **Michigan State University** *BSc Mathematics*  
2004

## Honors & Awards

- **ASSETT Faculty Fellow** *University of Colorado, Boulder*  
Spring 2019-Present
- **Graduate Teaching Prize** *University of Southern California*  
Dennis Ray Estes Prize Spring 2014
- **Outstanding Teaching Assistant** *Michigan State University*  
For work in the ESP program Spring 2008

## Invited Lectures

- **AMS Special Session on Hopf Algebras and Tensor Categories** *Atlanta, GA*  
Automorphisms of Bismash Products January, 2017
- **Hopf Algebras and Actions** *University of Washington*  
Automorphisms of Bismash Products April, 2016

- **Ring Theory Seminar** *University of Colorado, Colorado Springs*  
Hopf Algebras and Groups Oct. 2015
- **Algebraic Lie Theory Seminar** *University of Colorado, Boulder*  
Group Factorizations and Hopf Algebras Sept. 2015
- **AMS Spring Sectional Meeting: Groups and Representations** *Michigan State University*  
Bismash Products and Exact Factorizations of  $S_n$  March 2015
- **AMS Special Session on Hopf Algebras and Tensor Categories** *San Antonio, TX*  
Bismash Products and Exact Factorizations of  $S_n$  January, 2015
- **Hopf Algebras and Actions** *University of Washington*  
Bismash Products and Exact Factorizations of  $S_n$  Nov., 2014
- **Algebra Seminar** *Louisiana State University*  
Bismash Products and Exact Factorizations of  $S_n$  Sept., 2014
- **Hopf Working Seminar** *University of Southern California*  
Group Theoretical Categories Oct., 2013

### Math Education Conferences

- **Inquiry Based Learning Workshop** *University of Colorado at Boulder*  
August 2016
- **Inquiry Based Learning Workshop** *Cal. Poly. State Univ.*  
June 2016

### General Math Talks

- **CU Math Club** *University of Colorado*  
Incongruities of Infinity January, 2018

### Teaching Experience

- **As Course Coordinator**
  - Data and Models (MATH 1212) *University of Colorado, Boulder*  
Fall 2018
  - Calculus III (MATH 2400) *University of Colorado, Boulder*  
Summer 2017, Summer 2018
  - Introduction to Statistics (MATH 2510) *University of Colorado, Boulder*  
Spring 2016-Spring 2018
- **As the Instructor**
  - Introduction to Probability (MATH 4510/5510) *University of Colorado, Boulder*  
Spring 2018, Summer 2018
  - Data and Models (MATH 1212) *University of Colorado, Boulder*  
Spring 2018, Fall 2018
  - Calculus I (MATH 1300) *University of Colorado, Boulder*  
Fall 2017
  - Differential Equations (MATH 3430) *University of Colorado, Boulder*  
Fall 2017
  - Calculus III (MATH 2400) *University of Colorado, Boulder*  
Summer 2017, Summer 2018
  - Calculus II (MATH 2300) *University of Colorado, Boulder*  
Summer 2016, Spring 2017

- Math Analysis in Business (MATH 1112)  
Spring 2016, Fall 2016 *University of Colorado, Boulder*
- Introduction to Statistics (MATH 2510)  
Fall 2015 - Spring 2018 *University of Colorado, Boulder*
- Calculus for Social Science (MATH 1080)  
Fall 2015 *University of Colorado, Boulder*
- Quantitative Reasoning (MATH 1012)  
Fall 2015 *University of Colorado, Boulder*
- Calculus II  
Spring 2015 *Louisiana State University*
- Honors Calculus I  
Fall 2014 *Louisiana State University*
- Differential Equations  
Summer 2006, 2008 *Michigan State University*
- Survey of Calculus I  
Summer 2007 *Michigan State University*
- College Algebra  
Fall 2005, Spring 2006 *Michigan State University*

### Computer Programming

- Working Knowledge of Computer Algebra Systems
  - **GAP**  
[www.gap-system.org](http://www.gap-system.org)
  - **Magma**  
[magma.maths.usyd.edu.au/](http://magma.maths.usyd.edu.au/)

### Service

- As A Committee Member
  - Teaching Quality Framework  
Fall 2018 - Present *Department of Mathematics Committee*
  - MATH 1212 Textbook Selection  
Spring 2018 *Department of Mathematics Committee*
  - Math Placement Exam  
Spring 2018 *Department of Mathematics Committee*
  - Diversity Committee  
Fall 2016 - Present *Department of Mathematics Committee*
  - Learning Assistant Hiring  
Spring 2016 - Present *Department of Mathematics Committee*
- As A Contributing Faculty Member
  - MATH 1212 Course Overhaul  
Spring 2018 *Sole Contributor*
  - Curriculum Development for MATH 2400  
Spring 2017 *with Faan Tone Liu and Lee Roberson*
  - IBL Methods of MATH 3430  
Fall 2017 *Sole Contributor*

### Preprints and Publications

- Indicators of Bismash Products from Exact Symmetric Group Factorizations  
Communications in Algebra, Vol. 45 Issue 10, 4444-4465