

# Leah D. Gibson

---

Colorado State University  
Department of Mathematics

leah.gibson@rams.colostate.edu

---

## Education

### Graduate Education

Colorado State University  
*Mathematics Ph.D. Program*

Aug. 2020 - Present

### Undergraduate Education

Colorado State University  
*Bachelor of Science in General Mathematics*  
*Minor in Spanish*

Aug. 2017 - May 2020

---

## Publications

Henry Adams, Leah Gibson, and Jack Pfaffinger. *Lions and contamination, triangular grids, and Cheeger constants*. Association for Women in Mathematics Springer series Research in Computational Topology 2 (2022). Preprint [arXiv:2012.06702](https://arxiv.org/abs/2012.06702)

---

## Research Experience, Conferences and Workshops

CSU Center for Interdisciplinary Mathematics and Statistics Fellowship Summer 2021  
*Modeling the counterdiffusion of ammonia and hydrogen chloride*

Graduate Student Mathematical Modeling Camp June 2021  
*Water flow through plants and its impact on climate*

Mathematical Problems in Industry June 2021  
*Differential privacy in travel data for the company Resource Systems Group*

European Workshop on Computation Geometry April 2021  
*Lions and contamination, triangular grids, and Cheeger constants extended abstract*

Nebraska Conference for Undergraduate Women in Mathematics Jan. 2020

Senior Honors Thesis Fall 2019  
*Training rescue horses*

---

## Teaching

**Instructor:** Math 261, *Calculus for Physical Scientists III* SP 2022  
**Instructor:** Math 160, *Calculus for Physical Scientists I* FA 2020 - FA 2021  
**Learning Assistant:** Math 261, *Calculus for Physical Scientists III* SP 2018 - SP 2020  
**Course Assistant:** Math 117 - 126, *Precalculus Center* FA 2017 - SP 2020  
**Intern:** Educational Leadership, *Compass Community Collaborative School* SP 2019

---

## Organization and Service

Undergraduate Liaison, Association for Women in Mathematics Aug. 2019 - May 2020  
*Colorado State University*

Presenter at Math Jam Junior Dec. 17, 2019  
*Windsor Charter Academy*

Presenter at Math Science Tech Day Oct. 3, 2019  
*Colorado State University*

Public Achievement Coach Aug. 2018 - May 2019  
*Polaris Charter Academy*

---

## Research Talks

*Lions and contamination, triangular grids, and Cheeger constants.* European Workshop on Computation Geometry, April 17, 2021.

*Plant hydraulics.* Graduate Student Mathematical Modeling Camp, June 12, 2021.

---

## Awards and Honors

Colorado State Honors Program Aug. 2017 - May 2020

College of Natural Sciences Dean's List Aug. 2017 - May 2020

President's Leadership Program Scholar Aug. 2017 - May 2019

Colorado State University College of Natural Sciences Scholar Received 2017

Boettcher Scholarship Received 2017

*A merit-based scholarship for Colorado high school seniors that provides a full-ride to any four-year institution in Colorado.*

---

## Advisor

<b>Name</b>	Patrick Shipman
<b>Department</b>	Colorado State University Mathematics
<b>Position</b>	Professor
<b>Contact</b>	patrick.shipman@colostate.edu

## Coadvisor

<b>Name</b>	Emily King
<b>Department</b>	Colorado State University Mathematics
<b>Position</b>	Assistant Professor
<b>Contact</b>	emily.king@colostate.edu

## Committee

<b>Name</b>	Jeffrey Pierce
<b>Department</b>	Colorado State University Atmospheric Science
<b>Position</b>	Professor
<b>Contact</b>	jeffrey.pierce@colostate.edu