

# Jason Torchinsky

<https://jasonltorchinsky.github.io>  
jltturner5@wisc.edu | 413.242.4702

## EDUCATION

**UNIVERSITY OF WISCONSIN - MADISON** | PH.D. IN MATHEMATICS

Expected May 2023 | Madison, WI

**UNION COLLEGE** | B.Sc. IN MATHEMATICS AND PHYSICS

June 2018 | Schenectady, NY

## PUBLICATIONS

**Turner, J. L., and Stechmann, S. N.**, Parallelizing a serial code: open-source module, EZ Parallel 1.0, and geophysics examples, Geoscientific Model Development Discussions, 2020 (2020), pp. 1–18. (Under Review.)

**Turner, J. L., and LaBrake, S.**, Elementary computational fluid dynamics using finite-difference methods, Union Digital Works Honors Theses, 1581 (2018), pp. 1–27.

**Turner, J. L., Johnson, B., and Gasparovic, E.**, Introduction to computational topology using simplicial persistent homology, Union Digital Works Honors Theses, 1660 (2018), pp. 1–129.

## RESEARCH PROJECTS

**MULTI-MODEL COMMUNICATION USING KALMAN FILTER-BASED STRATEGIES** | UNIVERSITY OF WISCONSIN - MADISON DEPARTMENT OF MATHEMATICS

November 2019 - Present | Madison, WI

**EZ PARALLEL: AN MPI FORTRAN LIBRARY FOR EASING FINITE DIFFERENCE / PSUEDO-SPECTRAL CODE PARALLELIZATION** | UNIVERSITY OF WISCONSIN - MADISON DEPARTMENT OF MATHEMATICS

September 2018 - March 2020 | Madison, WI

**EZDFFTPACK: A COLLECTION OF WRAPPERS FOR DFFTPACK** | UNIVERSITY OF WISCONSIN - MADISON DEPARTMENT OF MATHEMATICS

August 2019 | Madison, WI

**STATISTICAL ANALYSIS OF RICHTMYER-MESHKOV INSTABILITIES** | LOS ALAMOS NATIONAL LABS

June 2018 - August 2018 | Los Alamos, NM

**SIMULATION OF ELEMENTARY FLUID FLOWS** | UNION COLLEGE DEPARTMENT OF PHYSICS

January 2018 - June 2018 | Schenectady, NY

**PERSISTENT HOMOLOGICAL ANALYSIS OF BUCKYBALL® ARRANGEMENTS** | UNION COLLEGE DEPARTMENT OF MATHEMATICS

September 2017 - March 2018 | Schenectady, NY

**GENERALIZATIONS OF COLLATZ FUNCTIONS** | CSU CHANNEL ISLANDS REU 2017

June 2017 - August 2017 | Camarillo, CA & Schenectady, NY

# ACHIEVEMENTS AND FELLOWSHIPS

## FELLOWSHIPS AND GRANTS

NERSC AY 2020 Exploratory Allocation Award .....	2020
Department of Energy Computational Science Graduate Fellowship .....	2019

## AWARDS

University Housing's Honored Instructor Award .....	2019
George H. Catlin (1867) Prize .....	2018
Martin Terry Resch Prize .....	2018
Professor Frank Titus Memorial Prize in Physics .....	2018

## SOCIETIES

Omicron Delta Kappa Honor Society .....	2017
Phi Beta Kappa Honor Society .....	2017
Pi Mu Epsilon Honor Society .....	2017
Sigma Pi Sigma Honor Society .....	2017

## AFFILIATIONS

Department of Energy Computational Science Graduate Fellowship  
University of Wisconsin-Madison Department of Mathematics  
American Mathematical Society

# TALKS, WORKSHOPS, AND POSTER PRESENTATIONS

Statistical Analysis of Richtmyer-Meshkov Instabilities .....	Los Alamos 2018 Computational Physics Summer Workshop
Persistent Homology of BuckyBall® Configurations .....	2018 Union College Steinmetz Day
The Dynamics of Everyday Fluid Flows .....	2018 Union College Steinmetz Day
Integrating Fluid Dynamics into the Undergraduate Curriculum .....	2018 APS March Meeting
Generalizations of Collatz Functions .....	Union College Undergraduate Math Seminar Series
Introduction to LaTeX: General Use and Resume Writing .....	Winter 2018, Union College
Generalizations of Collatz Functions to Geometric Algebras .....	2017 APS New York State Sectional Autumn Meeting