

Kaitlin O'Dell

PHD STUDENT · APPLIED MATHEMATICS

Department of Mathematics, University of Utah
1425 E Presidents Cir, Room 326
Salt Lake City, UT 84112
✉ odell@math.utah.edu

Education

University of Utah

PHD APPLIED MATHEMATICS

- Advisor: Dr. Yekaterina Epshteyn

Salt Lake City, UT

Aug. 2020 - present

University of New Mexico

BS APPLIED MATHEMATICS

- Minor: Statistics
- Undergraduate Research Advisor: Dr. Deborah Sulsky
- Honors: *Summa Cum Laude* and *Summa Cum Laude in Mathematics*

Albuquerque, NM

Jan. 2017 - May 2020

Awards, Fellowships, & Grants

2022- NSF Graduate Research Fellowship Recipient, University of Utah

2020 Outstanding Undergraduate in Applied Math, University of New Mexico

2019 Outstanding Mechanical Engineering Student, University of New Mexico

2017-2020 Deans List, University of New Mexico

2018-2019 NSF S-STEM Scholarship, University of New Mexico

\$ 7,500

NSF STEP Grant, University of New Mexico

\$ 2,500

Research Experience

University of Utah - Department of Mathematics

ADVISOR: DR. YEKATERINA EPSHETYN

- “A Particle-based Energetic Variational Approach for Modelling Fokker-Planck Equations and similar models”

Salt Lake City, UT

2021-

Los Alamos National Laboratory

CO-ADVISORS: DR. BERTRAND ROUET-LEDUC, DR. CHRISTOPHER REN

- “Deep Learning for Satellite Imagery: Modelling the Atmospheric Effects”

Los Alamos, NM

2021

University of New Mexico - Department of Mathematics

ADVISOR: DR. DEBORAH SULSKY

- Honors Thesis: “Double Cantilever Beam Model for a Compact Tension Specimen”

Albuquerque, NM

Aug. 2019 - May 2020

Professional Experience

2022- Graduate Research Assistant, Dept. of Mathematics, University of Utah

2020-2021 Graduate Teaching Assistant, Dept. of Mathematics, University of Utah

2021 Computational Physics Workshop, Los Alamos National Laboratory

2019-2020 Undergraduate Research Assistant, Dept. of Mathematics, University of New Mexico

2019 Rotorcraft Aeromechanics Intern, NASA Ames Research Center

2018 R&D Integration Engineer Intern, SolAero Technologies

Skills

MATLAB · Python · \LaTeX · R · Visual Basic

Teaching Experience

Summer 2022	Engineering Linear Algebra and ODEs, MATH 2250 , Instructor of Record	<i>U. of Utah</i>
Fall 2021	Business Calculus, MATH 1100 , Instructor of Record	<i>U. of Utah</i>
Spring 2021	Engineering Vector Calculus and PDEs, MATH 3140 , Lab Instructor	<i>U. of Utah</i>
Fall 2020	Honors Accelerated Engineering Calculus I, MATH 1310 , Lab Instructor	<i>U. of Utah</i>
Spring 2020	Calculus II , Supplemental Instructor	<i>U. of NM</i>
2019-2020	Center for Academic Program Support , Math Tutoring	<i>U. of NM</i>

Presentations

- O'Dell, K.** SIAM After Graduation Panel: Graduate Student Advisory Committee, University of Utah, Salt Lake City, UT. 2022.
- O'Dell, K.** Deep Learning Techniques for Modelling Atmospheric Effects: Applied Math Collective Seminar, University of Utah, Salt Lake City, UT. 2021.
- O'Dell, K.** Failure Feature Illustrated by a Double Cantilever Beam Specimen: Applied Math Collective Seminar, University of Utah, Salt Lake City, UT. 2020.
- O'Dell, K.** MATLAB Introduction and Tutorial: SIAM Skill Series, University of Utah, Salt Lake City, UT. 2020.

Mentoring

- 2021- **Maya Wagner**, AWM Undergraduate Mentee
- 2021- **Corinne Orton**, AWM Undergraduate Mentee

Publications

Angermeier, William, Barros, Claudio, Dumitru, Ioana Diana, Holmes, Matthew Cradin, Howard, Jerry Robert, Johnstun, Scott Ryan, King, Garrett B., Lindbloom, Jonathan Tobias, Lordi, Noah Perry, Luu, Anh, Martinez, Saige Elijah, McBride, Julius Noble, Nelluvelil, Eappen Sebastian, **O'Dell, Kaitlin Therese**, Pace, Henry Rogers, Poole, Nicholas A., Ramkumar, Abhinav, Riedel, Sean M., Singh, Luquant, Venkat, Sreeram Raguraman, Weatherred, Dylan Austin, Wei, Julia Y., York, Kyle A., Yousuf, Fatima, Andrews, Madison Theresa, Israel, Daniel M., and Kulesza, Joel A. Final Reports of the 2021 Los Alamos National Laboratory Computational Physics Student Summer Workshop. United States: N. p., 2021. Web. doi:10.2172/1820058.

IN PREP

- O'Dell, Kaitlin**, Deborah Sulsky, and Howard Schreyer. Failure Features Illustrated by a Double Cantilever Beam Model.
- O'Dell, Kaitlin**, Deborah Sulsky, and Howard Schreyer. Numerical Modifications to Double Cantilever Beam Model for Improved Failure Process.

Outreach & Professional Development

SERVICE AND OUTREACH

- 2021- **SIAM, University of Utah Chapter**, President
- 2021- **AWM, University of Utah Chapter**, Secretary
- 2021- **AWM, University of Utah Chapter, Events Committee**, Committee Co-Chair

PROFESSIONAL DEVELOPMENT

August
2020

Department of Mathematics Teaching Workshop, University of Utah