# **Applied Mathematics**



Spring 2024 Graduation Recognition

Honoring graduates from the Department of Applied Mathematics

May 9, 2024 12:00 PM <a href="http://www.colorado.edu/amath">http://www.colorado.edu/amath</a>

## **Program of Ceremony**

#### Welcome

Mark Hoefer, Professor

## **Graduate Program Remarks**

Zack Kilpatrick, Associate Professor and Graduate Chair

## **Doctoral Candidate - Student Speaker**

Sam Zhang

Recognition and Hooding of Ph.D. candidates

Recognition of Master of Science candidates

## **Professional Master's Program Remarks**

Judith Law

## Master's Candidate - Student Speaker

Rodger Zhang

Recognition of Master of Science candidates

## **Undergraduate Program Remarks**

Anne Dougherty, Ph.D., Teaching Professor and Associate Chair

## Bachelor's Candidate - Student Speaker

Maedée Trank-Greene

Recognition of Bachelor of Arts candidates

Recognition of Bachelor of Science candidates

Platform party recesses



## 2024 Platform Party

Aaron Clauset, Anne Dougherty, Mark Hoefer, Zack Kilpatrick, Will Kleiber, Judith Law, Manuel Lladser, Juan Restrepo, Maedée Trank-Greene, Rodger Zhang, Sam Zhang

## December 2023 and August 2024 Graduates

The University does not offer a commencement ceremony for those students who complete their degrees in December or August. So that all of our students are recognized, we include those students who received their degrees in December 2023, or will be receiving them in August 2024.

# **Doctor of Philosophy**

#### Sabina Adhikari

Synchronization of phase oscillators on hypergraphs **Dissertation Advisors:** Juan G. Restrepo, APPM

## **Caitlin Berry**

Subordinated Processes and Spectral Analysis for High Frequency Time Series

**Dissertation Advisor:** William Kleiber, APPM

## **Heather Lynn Cihak**

The impact of synaptic dynamics on working memory in neural field equations.

**Dissertation Advisor**: Zachary P. Kilpatrick, APPM

## **Kevin Michael Doherty**

Numerical Methods for Non-Uniform Data in Machine Learning

**Dissertation Advisor**: Stephen Becker, APPM

#### **Evan Gorman**

Learning Sparse Representations of Hierarchically Structured Data with Applications to Comparative Metagenomics

Dissertation Advisor: Manuel Lladser, APPM

#### **Andrew Lawrence**

Advancements in Numerical Modeling: High-Order Methods for Fractional Initial Value Problems and Meshfree Solvers for Partial Differential Equations

**Dissertation Advisor:** Bengt Fornberg, APPM

## Yifeng Mao

Two-Phase Wave Interactions and Periodic Wavemaker Problem in Dispersive Hydrodynamics

**Dissertation Advisor:** Mark Hoefer, APPM

## **Rachel Robey**

Approaches to multi-scale challenges in measurements and modeling of geophysical flows

Dissertation Advisors: Julie Lundquist, ATOC and Keith Julien, APPM

### **Kristopher Tucker**

Analyzing Properties of Driven-Dissipative Quantum Systems from the Mean Field to Machine Learning

Dissertation Advisors: Ana Maria Rey, PHYS and Juan G. Restrepo, APPM

#### Killian Reed Wood

Advances in Stochastic Optimization with Decision-dependent Distributions **Dissertation Advisor:** Emiliano Dall'Anese, ECEE

## Shimian 'Sam' Zhang

Statistical models of scientific careers and decision-making

**Dissertation Advisor:** Aaron Clauset, CSCI

## **Master of Science**

Anna Kinne Granquist
Tyler James Jensen
Zachariah Malik
Eappen Sebastian Nelluvelil
Kaloyan Parvanov
John Timothy Quinn
Camille Renaud
Frank Charles Seidl
Sean Paul Svihla
Chi 'April' Tran



## **Professional Master of Science**

Isabel Beaulieu
Ian Bircak
Claudia Chen
Kevin Quoc Dang
Connor Flaherty
Eric Matzke Flaska
Mitchell John Krouss
Samuel Y Kwon
Bisman Singh
Samuel Stiffman
Nihar Gregory Tomy
Sam Robert Touvannas
Yujie Zhang

# **Bachelor of Arts Statistics and Data Science**

Julia W. Bao Carmela Gwen Carver Marco Edmundo Cordero Zain R. Elsell John Campbell Frederickson Avery William Fulton Marcus Alexander Garcia Alex Greyson Hall Bailey Marielle Hall Ashlynn Kane McGrattan Mary Lloyd Molingowski **Emily Anne Palese** Luke Samuel Pheneger Andrew Itty Philips Max Morgan Silver Lalita Suwattee Santiago Velasco Hannah Prue Whaley

♠ Maurice Davies Award (American Statistical Association)

# Bachelor of Science Applied Mathematics

Aubrie L. Capps \*
Cambria Denae Chaney ◆•
Sophia Clark
Clayton James D'Epagnier ◆
Chris Hieu Doan
Charles Doremieux ∇
Henry Merrill Dyer \* †
Ryan Rabel Foley
Ella Louise Glebe
Emily Claire Kaiser ∇
Daniel Lisle
Molly Noelle McFaul

Aria Trew Mundy
Victoria Nawalany
Ellen Katherine Puzak •
Jenna Rae Rothe •
Katherine Frances Simon
Luke Aaron Stuckenbruck
Kevin Roger Stull
Maedée Sola Trank-Greene ∇
Stella O'Brien Vannier
Santiago Velasco
Walter Dickson Virany ∇
Gabriel Thomas Wallon ◆

#### **Undergraduate Engineering Honors**

- Engineering Honors Program
- ◆ Summa Cum Laude (Final GPA 3.900 4.0)

  \* Magna Cum Laude (Final GPA 3.800 3.899)

∇ Cum Laude (Final GPA 3.700 – 3.799) † A&S Honors Thesis



On behalf of the faculty and staff of Applied Mathematics, congratulations Class of 2024! We are pleased to welcome you as new alumni and we wish you all a very fruitful journey as you embark on this new phase of your life. Please stay in touch.







In Memoriam
Professor Keith Julien
June 12, 1965 – April 14, 2024

Keith Julien, world renowned CU applied mathematician, passed away at 58. His more than 30-year career at CU-Boulder included service as Chair of the Department of Applied Mathematics from 2015 to 2024. Keith Julien passed unexpectedly at St. Joseph's Hospital after a short illness on Sunday April 14, 2024. Keith is survived by his loving wife Susan, sons Simon and Theodore, father O'Neill and mother Agnes, older brother Kelvin, younger sisters Sandra and Sherma, and a wide circle of friends.

Thank you so much for joining us today to celebrate our Applied Mathematics graduates. We are proud of all of your hard work and we hope you stay connected with us in the future.

Graduate slides will be available at:

http://www.colorado.edu/amath

Stay in contact with us:

http://www.colorado.edu/amath/alumni

#### Linkedin:

https://www.linkedin.com/in/applied-mathematics-cu-boulder-262ab7b2

#### Forever Buffs:

http://www.colorado.edu/alumni/benefits/forever-buffs

Donate to Applied Mathematics:

https://www.colorado.edu/amath/donate