K. ROBERT CHICKERING

1 Shields Ave, Davis, CA 95616 ⋄ MSB 3202
krc@math.ucdavis.edu

SUMMARY

I am interested in partial differential equations and analysis. In particular I am interested in the analysis of fluid systems, nonlinear phenomena, and chaotic PDE.

EDUCATION

University of California, Davis 2021 - 2024
Ph.D. in Applied Mathematics

University of California, Davis 2019 - 2021
M.S. in Applied Mathematics

University of California, Davis 2017 - 2019
B.S. in Applied Mathematics Minor in Computer Science
Thesis: Mathematical Modeling of Anomalous ...
Advisor: Professor Tim Lewis

EXPERIENCE

UC Davis Department of Mathematics June 2018 - October 2019
Research Assistant
Advisor: Professor Tim Lewis

Pluribus Networks Summer 2016, Summer 2017
Software Engineering Intern

AWARDS

Citation for Excellence in Undergraduate Research October 2019
Awarded by the Mathematics department.

Mathematics Department Summer Fellowship Summer 2019
Stipend to conduct research over the summer. Advisor: Tim Lewis

Citation for Outstanding Performance June 2019
Awarded by the Mathematics department.

Departmental Citation June 2019
Awarded by the Mathematics department.

UC Davis Outstanding Senior Award in Applied Mathematics May 2019
Awarded to a single student in applied mathematics by the University.

Deans' Honor List

SERVICE

UC Davis Mathematics Reserach Conference January 2020
Lead Organizer

UMAP (Undergraduate Mathematics and Physics Reading Group) April 2019-Present
Co-organizer, speaker

UC Davis Math Circle October 2018 - October 2019
Secretary and Treasurer

TALKS AND PRESENTATIONS

Long Time Existence via a Modified Energy Method February 2020
UC Davis Student run Analysis and PDE Seminar

Effect of Elastic Fluids on Cilia Dynamics October 2019
UC Davis Undergraduate Mathematics Research Conference

Measure Theory, Integration, and L^p Spaces April 2019
Undergraduate Math and Physics Reading Group

Mathematical Modeling of Anomalous Electrical Activity in Networks of TSC1- Mutant Neurons in the Thalamus April 2019
UC Davis Spring Research Conference

Fractals and Recursion March 2019
UC Davis Math Circle

LaTeX: A Document Preparation System February 2019
UC Davis Math Club

Spike-Escape Behavior in Electrically Coupled Thalamocortical Relay Cells with TSC1 Gene Deletion October 2018
UC Davis Undergraduate Mathematics Conference

CONFERENCES (ATTENDEE)

AMS Spring Western Sectional Meeting May 2020
Fresno State University

TEACHING

TA - MAT 119: Nonlinear Dynamics Winter 2020
Instructor: Professor Tim Lewis

TA - MAT 21B: Integral Calculus Fall 2019
Instructor: John Challenor

TA - MAT 21B: Integral Calculus Fall 2019
Instructor: Professor Ben Morris

RELEVANT COURSEWORK

Mathematics

MAT 118A: Partial Differential Equations I
MAT 118B: Partial Differential Equations II
MAT 025: Analysis I
MAT 125A: Analysis II
MAT 128A: Numerical Analysis I
MAT 141: Euclidean Geometry
MAT 150A: Modern Algebra I
MAT 199: Independent Study
MAT 119A: Nonlinear Dynamics I
MAT 125B: Analysis III
MAT 128C: Numerical Analysis III
MAT 135: Probability
MAT 185A: Complex Analysis
MAT 194: Undergraduate Thesis
MAT 198: Partial Differential Equations Reading Course
MAT 201A: Graduate Analysis I
MAT 201A: Graduate Analysis II
MAT 207A: Methods of Applied Mathematics I
MAT 207B: Methods of Applied Mathematics II
MAT 218A: Graduate Partial Differential Equations I
MAT 218B: Graduate Partial Differential Equations II

Computer Science

ECS 120: Theory of Computation
ECS 140A: Programming Languages I
ECS 154A: Computer Architecture I
ECS 171: Artificial Intelligence