

Kit Newton

Education

Diablo Valley College
Department of Mathematics
knewton@dvc.edu
(925)969-2674

University of Wisconsin-Madison

Ph.D., Physics (Applied Math), 2016-August 2020

Adviser: Qin Li

M.A., Mathematics, December 2018

M.A., Physics, May 2018.

Reed College

B.A., Physics, 2016.

Teaching

Department of Mathematics, Diablo Valley College

Assistant Professor, Fall 2020 - present

Trigonometry, Precalculus, Calculus II & III, Differential Equations

Department of Physical Science, Madison Area Technical College

Instructor, Fall 2019 & Spring 2020

College Physics I & Physics of Everyday Life.

Departments of Mathematics & Physics, University of Wisconsin-Madison

Teaching Assistant, 2017 - 2020

Calculus I, II, and III.

Electricity and Magnetism for Engineers.

College of Engineering, University of Wisconsin-Madison

Instructor, Engineering Summer Program, Summer 2018

Precalculus.

Departments of Mathematics & Physics, Reed College

Tutor/Grader/TA, 2014-2016

Quantum Mechanics II, Mathematical Methods for Physics,

Introduction to Modern Physics, Intro to Mechanics, Intro to E&M.

Calculus, Intro to Analysis, Multivariable Calculus, Intro to Computing.

Math and Science Resource Center, De Anza College

Tutor, 2009-2012

Math, Physics

Outreach and Service

Co-organizer

Applied Kinetic Theory for Junior Researchers Conference

University of Wisconsin-Madison, April 19-21, 2019.

Volunteer

Girls Math Night Out

September 2018 - December 2018

Speaker

Madison Math Circle

October 2018

Mentor

Directed Reading Program

September 2018 - December 2018

President and Founder

Out in Science, Technology, Engineering, and Mathematics at UW-Madison

July 2017 - July 2018

Volunteer

Expanding Your Horizons

November 2017

Seminar Series Coordinator

Women and Gender Minorities in Physics

September 2016 - July 2018

Fellowships**University Fellowship**

Department of Physics

University of Wisconsin-Madison, 2016-2017

Graduate School Fellowship

Department of Physics

University of Wisconsin-Madison, 2016

Firminhac Fellowship for Women in Physics

Department of Physics

University of Wisconsin-Madison, 2016

Awards and Honors**John A. Nohel Prize in Applied Mathematics**

University of Wisconsin, 2019.

Elizabeth Hirschfelder Prize

University of Wisconsin, 2019.

Mid-Career TA award

University of Wisconsin-Madison, 2019.

Phi Beta Kappa

Reed College, 2016.

Commendation for Excellence

Reed College, 2013 and 2015.

Publications

Q. Li, R.-Y. Lai, L. Wang, and K. Newton,
Bayesian inverse problems for the linear and nonlinear RTE
in preparation.

K. Chen, Q. Li, K. Newton, and S. Wright
Structured random sketching for PDE inverse problems
Submitted October 2019.
E-print: <https://arxiv.org/abs/1909.11290>.

Q. Li and K. Newton,
Diffusion equation assisted Markov chain Monte Carlo methods
for the inverse radiative transfer equation.
Entropy 21 (3) 2019.
E-print: <https://www.mdpi.com/1099-4300/21/3/291>.

K. Newton, Q. Li, and A. Stuart,
Diffusive optical tomography in a Bayesian framework.
SIAM-MMS, 18 (2) 2020
E-print: <https://arxiv.org/abs/1902.10317>.

J. Franklin and K. Cole Newton,
Classical and quantum mechanical motion in magnetic fields.
American Journal of Physics 84 (263) 2016
E-print: <https://arxiv.org/abs/1603.01211>.

J. Franklin, Y. Guo, K. Cole Newton, and M. Schlosshauer,
The dynamics of the Schrödinger-Newton system with self-field coupling.
Classical and Quantum Gravity 33 (7), 2016
E-print: <https://arxiv.org/abs/1603.03380>

Languages and Skills

English (native), French (advanced)
L^AT_EX, MATLAB, Mathematica