

Andrew Gracyk

University of Illinois Urbana-Champaign

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Education

University of Illinois Urbana-Champaign

2021-present

PhD, Statistics

Advised by Xiaohui Chen

University of California, Santa Barbara

2019-2021

MA, Applied Mathematics

Advised by Paul Atzberger

University of California, Los Angeles

2015-2019

BS, Applied Mathematics, minor in Statistics

Publications

GeONet: a neural operator for the Wasserstein geodesic

2022

Preprint, in preparation.

Research experience/organizations

DIGIMAT

2022-present

Member of DIGIMAT research association in materials and data science, co-hosted by the National Center for Supercomputing Applications and Materials Research Lab.

Atzberger Research Group

2020-2021

Member of research group in machine learning at UCSB.

Statistics research assistant 2019

Worked with Frederic Schoenberg, professor of statistics at UCLA, in imaging.

Statistics research in financial stochastic processes 2019

Performed statistics research in options trading using numerical simulation.

Mathematics research in numerical analysis 2018

Conducted numerical methods research with Chris Anderson, professor of mathematics at UCLA, in high frequency trading.

Mathematics research in stochastic differential equations 2018

Analyzed and applied research in numerical methods for financial stochastic differential equations.

Presentations

Diffusion normalizing flow

Reading group presentation, University of Illinois Urbana-Champaign, fall 2022

GeONet: a neural operator for learning the Wasserstein geodesic

Harnessing Data for Materials symposium, Chicago 2022, with Duke University and University of Chicago, fall 2022

The basics of PyTorch with NNs, CNNs, and PINNs

DIGIMAT professional development seminar, University of Illinois Urbana-Champaign, spring 2022

Convolutional neural networks in learning Fokker-Planck equations

MA thesis defense, University of California, Santa Barbara, spring 2021

Machine learning in solving the Poisson equation diffusion constant

SIAM graduate seminar. University of California, Santa Barbara, fall 2020

Convolutional neural networks in learning partial differential equations

Applied math summer seminar. University of California, Santa Barbara, summer 2020

Convolutional neural networks in learning partial differential equations

Graduate Simulation Seminar series. University of California, Santa Barbara, summer 2020

A special case of global regularity for the Navier-Stokes equation

Applied math summer seminar, University of California, Santa Barbara, summer 2020

Academic employment

University of Illinois Urbana-Champaign, statistics teaching
assistant

2021-2022

STAT 400 – Statistics and Probability I (Kelly Findley)

STAT 400 – Statistics and Probability I (Ha Nguyen)

University of California, Santa Barbara, mathematics teaching
assistant

2019-2020

Math 3B – Integral Calculus (Mychelle Parker)

Math 3B – Integral Calculus (Hauchen Chen)

Math 3B – Integral Calculus (Mihai Putinar)

Math 3B – Integral Calculus (Darren Long)