BRANDON S. SWEETING

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Research Interests

· Harmonic Analysis · Bellman Functions · Singular Integral Operators · Sharp Estimates · BMO · Dyadic Analysis · Best Constants · Weights · Factorization Theory · Extrapolation Theory

Education

PhD in Mathematics — Aug 2014 – Aug 2021
University of Cincinnati, Cincinnati, OH
Dissertation Advisor: Leonid Slavin
Dissertation Title: *Novel Bellman Estimates for A_p Weights*

BA in Mathematics — Aug 2011 – July 2014
University of South Florida, Tampa, FL
Summa Cum Laude

Appointments

Postdoctoral Researcher — Fall 2021 – Present
University of Alabama, Tuscaloosa, AL

Publications

L. Slavin, B. Sweeting,"Non-Infinitesimal Bellman functions and dyadic A_2 weights", *In Preparation.*

L. Slavin, B. Sweeting,"The John-Nirenburg Constant for $BMO^p, 0 < p < 1$", *In Preparation.*

Conference Talks

AMS Spring Central Sectional Meeting — 17 April 2021
hosted virtually by the American Mathematical Society
New Estimates for Dyadic Carleson Sequences

Ohio River Analysis Meeting (ORAM) 2021 — 20 March 2021
hosted virtually by the University of Kentucky
The John-Nirenburg Constant for $BMO^p, 0 < p < 1$

Southeast Analysis Meeting (SEAM) 2021 — 13 March 2021
hosted virtually by the University of Florida
New Estimates for Dyadic Carleson Sequences

Seminars & Colloquia

Analysis Seminar at University of Alabama — 29 January 2021
Novel Bellman Estimates for A_p Weights

Teaching Experience

Graduate Teaching Assistant at University of Cincinnati – Instructor of Record

- Introduction to Mathematical Reasoning (online) — Summer 2021
- Introduction to Mathematical Reasoning (online) — Spring 2021
- Foundations of Quantitative Reasoning (online) — Fall 2020
- Mathematics of Social Choice (online) — Summer 2020
- Mathematics of Management Science — Spring 2020
- Mathematics of Social Choice (online) — Fall 2019
- Mathematics of Social Choice (online) — Summer 2019
- Mathematics of Management Science — Spring 2019
- Mathematics of Social Choice (online) — Fall 2018
- Mathematics of Management Science (online) — Spring 2018
- Applied Calculus I — Fall 2017
- Mathematics of Social Choice — Spring 2017
- Mathematics of Management Science — Fall 2016
- Applied Calculus II (online) — Summer 2016

Graduate Teaching Assistant at University of Cincinnati – Teaching Assistant

- Calculus II, 3 sections — Spring 2016
- Calculus I, 2 sections — Fall 2015
- Calculus I, 3 sections — Spring 2015
- Calculus II, 3 sections — Fall 2014

Honors and Awards

- Maita Levine Award for Outstanding GA (for Teaching) — Spring 2020
- Albert C. Yates Fellow — 2014 – 2021
- King O'Neal Scholar — Spring 2014

Graduate Coursework

· Real Analysis · Complex Analysis · Topology · Harmonic Analysis · Functional Analysis · Probability · Ordinary Differential Equations · Partial Differential Equations · Stochastic Differential Equations · Geometric Function Theory · Geometric Analysis · Numerical Analysis · Linear Algebra

Relevant Skills

Languages: English, French

Programming Languages: Python, Java, Swift, Mathematica, C++

Programming Libraries/APIs: TensorFlow, Keras, Scikit-Learn, PyCUDA, Scipy, Numpy, MatPlotLib

Professional Affiliations

American Mathematical Society (AMS) 2014 – present

Pi Mu Epsilon, Florida Epsilon Chapter (USF) 2013 – present