# Curriculum Vitae

Andrew Walton Green

## Education

Clemson University
>Ph.D. in Mathematical Sciences, 2020. Advisors: Shitao Liu and Mishko Mitkovski
>M.S. in Mathematical Sciences, 2016.

University of Mobile
>B.S. in Mathematics, 2014.
>B.A. in Music, 2014.

## Employment

NSF Postdoctoral Fellow (MSPRF). Washington University in St. Louis. July 2022 - present.

Chauvenet Postdoctoral Lecturer. Washington University in St. Louis. July 2020 - present.

## Grants

NSF Postdoctoral Fellowship MSPRF ($150,000). *Operators with Rough Symbols in Harmonic Analysis* DMS-2202813. Sponsoring Scientist: Brett D. Wick.

## Research Interests

Harmonic Analysis, Uncertainty Principle, Wavelets

Control Theory and Inverse Problems for Partial Differential Equations

## Publications

*Weighted estimates for the Bergman projection on planar domains* (with Nathan A. Wagner). to appear in Transactions of the AMS (2024) arXiv:2309.15754

*Dominating sets in Bergman spaces on strongly pseudoconvex domains* (with N. A. Wagner). Constructive Approximation 59 (2024)

*Invertibility of positive Toeplitz operators and associated uncertainty principle* (with Mishko Mitkovski). Journal of Fourier Analysis and Applications 29, No. 4 (2023)

*Bilinear wavelet representation of Calderón-Zygmund forms* (with Francesco Di Plinio and Brett D. Wick). Pure and Applied Analysis 5, No. 1 (2023)

*Uncertainty principles associated to sets satisfying the geometric control condition* (with Ben Jaye and M. Mitkovski). Journal of Geometric Analysis 32, No. 3 (2022)

*Source reconstruction and stability via boundary control of abstract viscoelastic systems* (with Shitao Liu). Applicable Analysis 101, No. 14 (2022)

*On the energy decay rate of the fractional wave equation on $\mathbb{R}$ with relatively dense damping.* Proceedings of the AMS 148, No. 11 (2020)

*Boundary observability for the viscoelastic wave equation* (with S. Liu and M. Mitkovski). SIAM Journal on Control and Optimization 57, No. 3 (2019)

## Preprints

*Wavelet resolution and Sobolev regularity of Calderón-Zygmund forms on domains* (with F. Di Plinio and B. D. Wick). arXiv:2304.13909

*Quantitative Sobolev regularity of quasiregular maps* (with F. Di Plinio and B. D. Wick). arXiv:2310.14089

*Multilinear wavelet compact T(1) theorem* (with Anastasios Fragkos and B. D. Wick). arXiv 2312.09185

*Observability of the heat equation from very small sets* (with Kévin Le Balc'h, Jérémy Martin, and Marcu-Antone Orsoni). arXiv:2407.20954

## Research Talks

*Plenary Talks*

Southeastern Analysis Meeting, Clemson University. (Spring 2023)

*Invited Special Session and Workshop Talks*

Recent Advancement in Control Theory and Applications in Artificial Intelligence, Joint Mathematical Meeting, Seattle, WA. (Winter 2025)

Harmonic Analysis and Geometric Measure Theory, CMS Winter Meeting, Richmond, BC. (Fall 2024)

Recent Developments in Harmonic Analysis, AMS Central Sectional, University of Wisconsin-Milwaukee. (Spring 2024)

Spectral Inequalities and Null Controllability, IWOTA, Helsinki, Finland. (Summer 2023, declined)

Focus Program on Analytic Function Spaces and their Applications, Fields Institute. (Fall 2021)

Analysis of Evolution PDEs and Applications, SIAM PDE 2019. (December 2019)

*Seminars*

Analysis Seminar, University of Missouri. (Spring 2024)

Analysis Seminar, FernUniversität in Hagen. (Spring 2023)

Analysis Seminar, Brown University. (Spring 2022, Spring 2023)

Analysis Seminar, University of Alabama. (Fall 2021)

## Teaching

Washington University in St. Louis
    MATH 308: Mathematics for the Physical Sciences
    MATH 132: Calculus II
    MATH 131: Calculus I

Clemson University
    MATH 1080: Calculus II
    MATH 1060: Calculus I
    MATH 1040: Pre-Calculus and Introduction to Differential Calculus
    STAT 2220: Statistics in Everyday Life

MAT 032: Developmental Math (at Tri-County Technical College)

## University and Public Service

Organized JMM 2025 Special Session "New Directions in Harmonic Analysis"

Referee for Arch. Rat. Mech. Anal., Analysis Mathematica, Int. Eq. Op. Theory, J. Math. Anal. Appl., Optimal Control Appl. Methods, Stud. Appl. Math., Taiwanese J. Math., Trans. Amer. Math. Soc.

Mathematical Reviews (10)

University Service: Analysis Seminar organizer, Graduate Student Seminar, Clemson Calculus Challenge, Math Club, and Math-In.

## Other Conferences, Special Sessions, and Workshops (* denotes contributed talk or poster)

### 2024

*Harmonic Analysis and Differential Equations - In Honour of Professor Jill Pipher, Macquarie University. (Summer 2024)

*Ohio River Analysis Meeting, University of Kentucky. (Spring 2024)

### 2023

Steven G. Krantz 70th Birthday Conference on Partial Differential Equations and Complex Analysis, Washington University in St. Louis. (Summer 2023)

### 2022

Guido Weiss Memorial Conference On Harmonic Analysis, Washington University in St. Louis. (Fall 2022)

*Extremal Problems in Harmonic Analysis, Convexity, and Bellman Functions, ICERM. (Fall 2022)

Midwest PDE Seminar, University of Missouri. (Fall 2022)

*18th Prairie Analysis Meeting, University of Kansas. (Fall 2022)

*Great Plains Operator Theory Symposium, Washington University in St. Louis. (Summer 2022)

*Joint Mathematics Meeting, New Problems in Several Complex Variables. (Spring 2022)

*Southeastern Analysis Meeting 2022, University of Florida. (Spring 2022)

### 2021

*17th Prairie Analysis Meeting, Kansas State University. (Fall 2021)

*30th St. Petersburg Analysis Meeting, Virtual. (Summer 2021)

Conference in Analysis and its Applications, Virtual. (Summer 2021)

### 2020

Virginia Operator Theory and Complex Analysis Meeting (VOTCAM), Virtual. (Fall 2020)

### 2019

*Interpolation in Spaces of Analytic Functions, CIRM, Marseille, France. (Fall 2019)

*Jubilee in Fourier Analysis and Applications, University of Maryland. (Fall 2019)

*AMS Sectional Special Session on Mathematical Analysis and Control Theory of Coupled PDE Models, Auburn University. (Spring 2019)

**2018**

*Mid-Atlantic Analysis Meeting, Virginia Polytechnic Institute. (Fall 2018)

*Northeastern Analysis Meeting, SUNY New Paltz. (Fall 2018)

*Southeastern Analysis Meeting, Georgia Institute of Technology. (Spring 2018)

Harmonic Analysis Graduate Summer School, Park City Mathematics Institute / Institute for Advanced Studies. (Summer 2018)

## Other Awards

Outstanding Graduate in Research Award (Clemson) - 2020

Doctoral Dissertation Completion Grant (Clemson) - Spring 2020 ($7500)

Excellent MS Student Award (Clemson) - 2017

Outstanding TA Award (Clemson) - 2016