

Duncan Wright

Curriculum Vitae

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Education:

Ph. D. Mathematics, University of South Carolina, Columbia, SC Advisor: Dr. George Androulakis	Expected May 2019
M. A. Mathematics, University of Northern Iowa, Cedar Falls, IA Advisor: Dr. Adrienne Stanley	May 2014
B.A. Mathematics, University of Northern Iowa, Cedar Falls, IA	May 2012

Research Experience:

Peer-Reviewed Publications

S. J. Dilworth and D. Wright, *A Direct Proof of the Reflection Principle for Brownian Motion*, Theory of Stochastic Processes 21(37) (2016), no. 2, pg. 1-3.

Submitted

G. Androulakis and D. Wright, *On the Nonlinearity of Quantum Dynamical Entropy*, Submitted, Preprint at arXiv:1810.05746.

G. Androulakis and D. Wright, *Optimality in Quantum Data Compression using Dynamical Entropy*, Submitted, Preprint at arXiv:1904.05402.

Grants, Awards and Other Honors:

Grants Received

SPARC Graduate Research Grant Office of the Vice President for Research, <i>University of South Carolina</i> (Columbia, SC) \$5,000 award	2018 - 2019
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Awards

Outstanding Teaching By A Graduate Assistant Award <i>University of South Carolina Math Department</i> (Columbia, SC)	2018 - 2019
Peer Excellence Initiative Award <i>University of South Carolina Math Department</i> (Columbia, SC)	2017 - 2018
Most Excellent New Graduate Student <i>University of South Carolina Math Department</i> (Columbia, SC)	2014 - 2015

Travel and Workshop Awards

- Travel Grant for Joint Math Meetings 2019 (\$500 award from organizers plus \$250 from University of South Carolina math department) Jan 2019
- Fully funded participant: Virginia Operator Theory and Complex Analysis Meeting 2018 (Lodging) Oct 2018
- Travel Grant for Quantum Computation and Information Workshop (\$250 award from University of South Carolina math department in addition to meals and lodging support from organizers) Sept 2018
- Travel Grant for BIRS-CMO Workshop (18w5059) on Quantum Transport Equation and Applications (\$800 award from University of South Carolina Graduate School in addition to meals and lodging support from organizers) Sept 2018
- Fully funded participant: Virginia Operator Theory and Complex Analysis Meeting 2017 (Lodging, meals and travel) Oct 2017
- Fully funded participant: QMath13 - Mathematical Results in Quantum Physics (Lodging, meals and travel) Oct 2016
- Fully funded participant: Virginia Operator Theory and Complex Analysis Meeting 2015 (Lodging, meals and travel) Oct 2015

Scholarly Presentations:

Invited Talks

- Connecting Observation Protocols and Post-Observation Feedback** Mar 2019
RCML 2019 Conference Leading & Learning: Mathematics Made Accessible for All
Charlotte, NC
- Dynamical Entropy of Quantum Random Walks** Jan 2019
University of South Carolina Graduate Colloquium
Columbia, SC
- An Introduction to Quantum Error-Correcting Codes** Dec 2018
University of South Carolina Algebra and Logic Seminar
Columbia, SC
- On the Nonlinearity of Quantum Dynamical Entropy** Sept 2018
BIRS-CMO Workshop (18w5059) on Quantum Transport Equation and Applications
Oaxaca, Mexico
- Analysis as a Graduate Student** March 2018
University of South Carolina AWM Workshop
Columbia, SC
- Entropy of Quantum Walks I** Oct 2017
University of South Carolina Analysis Seminar
Columbia, SC
- Entropy of Quantum Walks II** Oct 2017
University of South Carolina Analysis Seminar
Columbia, SC
- An Introduction to Quantum Mechanics through Random Walks** Oct 2017
University of South Carolina Graduate Colloquium
Columbia, SC

A Direct Proof of the Reflection Principle for Brownian Motion April 2017
University of South Carolina Analysis Seminar
Columbia, SC

Contributed Talks

An Introduction to Quantum Mechanics through Random Walks March 2019
Carolina Math Seminar
Greenwood, SC

Dynamical Entropy of Quantum Random Walks Jan 2019
Joint Math Meetings 2019 (Special Session)
Baltimore, MD

Applications of Dynamical Entropy in Quantum Computing Oct 2018
University of South Carolina Analysis Seminar
Columbia, SC

Nonlinearity for Quantum Dynamical Entropy Oct 2018
University of South Carolina Analysis Seminar
Columbia, SC

Poster Presentation

The Nonlinearity of Quantum Dynamical Entropy Sept 2018
Quantum Computation and Information Workshop
College Station, TX

Teaching Experience:

University of South Carolina Aug 2014 - present

Instructor of Record Jan 2015 - present

- Differential Equations (Spring 2019, Summer 2017)
- Discrete Mathematics for Computer Science (Fall 2018)
- Finite Mathematics (Fall 2017 - Spring 2018)
- Calculus I (Spring 2017)
- College Algebra (Fall 2016)
- Calculus II (Summer 2016)
- Business Calculus (Spring 2016)
- Intensive College Algebra (Fall 2015)
- Vector Calculus (Summer 2015)
- Pre-Calculus (Spring 2015)

Graduate Teaching Assistant Aug 2014 - Dec 2014
- Calculus II (Fall 2014)

Graduate Student Teaching Mentor Aug 2018 - May 2019
Teaching mentor for four novice graduate student instructors each semester.
NSF award ID #1725295

Graduate Level Grader Aug 2016 - May 2018
- Functional Analysis I & II (Fall 2017 - Spring 2018)

- Analysis I & II (Fall 2016 - Spring 2017)

University of Northern Iowa

Aug 2012 - May 2014

Graduate Assistant

Duties including, but not limited to, grading and tutoring up to twenty hours per week.

Skills and Memberships:

American Mathematical Society, student member
Association for Women in Mathematics, member
Preparing Future Faculty, credential
Mentor Professional Development Seminar
Gamecock Math Club, member

Academic Service:

Coordinator , University of South Carolina Analysis Seminar	Sept 2018 - May 2019
Proctor , AP Calculus Practice Exam	April 2017
Scavenger Hunt Co-organizer , U of SC High School Math Contest	April 2017
Block Game Co-organizer , U of SC High School Math Contest	April 2018

References:

Luigi Accardi

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University of Rome Tor Vergata
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