

RYAN T. WHITE

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LinkedIn Profile
FIT Faculty Profile
Personal Website

EDUCATION

- 2015** **Ph.D. in Applied Mathematics, Florida Institute of Technology**
Dissertation: Random Walks on Random Lattices and Their Applications
- 2011** **M.S. in Applied Mathematics, Florida Institute of Technology**
- 2008** **B.S. in Mathematics, Chadron State College**

ACADEMIC APPOINTMENTS

- 2015-Present** **Instructor, Florida Institute of Technology**

PUBLICATIONS AND RESEARCH

Research in probability theory, analysis of stochastic processes, and the underlying mathematics: in short, the study of randomness. Past work on reliability of stochastic networks, random walks, game theory, and queueing theory. Continued research in these areas, new work in mathematical biology and probabilistic potential theory in parabolic PDEs.

Refereed Journal Articles

J. H. Dshalalow, A. Merie, and R. T. White (2019). Fluctuation Analysis in Parallel Queues with Hysteretic Control. *Methodology and Computing in Applied Probability*. <https://doi.org/10.1007/s11009-019-09701-z>

J. H. Dshalalow and R. T. White (2016). Time Sensitive Analysis of Independent and Stationary Increment Processes. *Journal of Mathematical Analysis and Applications*. 433(2): 817-833. <https://doi.org/10.1016/j.jmaa.2016.05.063>

J. H. Dshalalow, K. Iwezulu, and R. T. White (2016). Discrete Operational Calculus in Delayed Stochastic Games. *Neural, Parallel, and Scientific Computations*, 24: 55-64.

J. H. Dshalalow and R. T. White (2014). On Strategic Defense in Stochastic Networks. *Stochastic Analysis and Applications*, 32(3): 365-396. <https://doi.org/10.1080/07362994.2013.877351>

J. H. Dshalalow and R. T. White (2013). On the Reliability of Stochastic Networks. *Neural, Parallel, and Scientific Computations*, 21: 141-160.

Manuscripts in Preparation

R. T. White and J. H. Dshalalow. Time Sensitive Analysis of Monotone Multidimensional Random Walks. [Conditionally accepted, undergoing revision]

R. T. White. Reliability of Stochastic Networks with Empirically Distributed Failures.

R. T. White. On the Exits of Multidimensional Renewal Processes from n -dimensional Hyperrectangles.

R. T. White. On the Exits of Oscillating Random Walks.

J. H. Dshalalow and R. T. White. On Progressive Mitotic Index.

R. T. White. *Probability and Statistics with R*.

CONFERENCE TALKS

R. T. White. On Exits of Oscillating Random Walks Under Delayed Observation. AMS/MAA Joint Mathematical Meetings. San Diego, CA. Jan 10-13, 2018.

R. T. White. Time Sensitive Analysis of d -dimensional Independent and Stationary Increment Processes. AMS Fall Southeastern Sectional Meeting. Orlando, FL. Sept 23-24, 2017.

R. T. White. Time Sensitive Analysis of Multivariate Marked Random Walks. SIAM Conference on Computational Science and Engineering. Salt Lake City, UT. March 14-18, 2015.

R. T. White. Stochastic Analysis of Strategic Networks. 38th Annual SIAM Southeastern Atlantic Section Conference. Melbourne, FL. March 29-30, 2014.

TEACHING EXPERIENCE

Six years of undergraduate teaching experience (2 as a GSA, 4 as an instructor). Overwhelmingly positive evaluations for teaching from students (typically at least 4.5/5) and supervisors (at least 9/10). Recognition by supervisor for significant contributions toward improving retention at FIT.

Probability and Statistics	(Summer 2018-2019)
Applied Calculus	(Fall 2015-2018, Spring 2016-2019)
Applied Calculus and Statistics	(Spring 2016-2019)
College Algebra	(Fall 2015-2018, Spring 2016-2019)
Intermediate Algebra	(Fall 2015-2018, Spring 2016-2019)
Precalculus	(Summer 2018)
Precalculus B	(Summer 2016)
Calculus 3	(GSA, Fall 2013-2014, Spring 2014-2015)
Differential Equations/Linear Algebra	(GSA, Spring 2014, Fall 2014)
Calculus 1	(GSA, Fall 2013)

UNIVERSITY/DEPARTMENTAL SERVICE

- 2017-Present** **Graduate recruiting**
Producing and distributing recruiting materials for graduate programs internationally.
- 2016-Present** **Math placement exams**
Hosting exams on campus, web support for students and advisers.
- 2015-Present** **Working with Ph.D. students**
Teaching students studying adjacent areas about my work, sharing coding methodology, providing support helping them adapt it to their purposes.
- 2015-Present** **Math tutoring**
Students enrolled in most math courses, quantitative methods, various statistics courses.
- 2015-Present** **Managing math labs**
Working (25-30 hours/week) in two math computer labs, tutoring my students and others, maintaining equipment and software, hiring tutors, scheduling tutors and faculty.

MEMBERSHIPS AND HONORS

- 2017-Present** **American Mathematical Society, Faculty Member**
Trained students in research presentations for conferences.
- 2015-Present** **Society for Industrial and Applied Mathematics, Faculty Member**
- 2012-2015** **Society for Industrial and Applied Mathematics, various positions**
Helped organize and teach at summer math camps in 2013-2015
Taught MATLAB to high school students with applications in epidemiology and graph theory and associated mathematics.
Developed learning objectives and student projects
- 2015** **Outstanding Graduate Student Award, Mathematical Sciences**
Florida Institute of Technology
- 2009-2015** **Phi Kappa Phi National Honor Society, Member**

RELATED PROFESSIONAL SKILLS

Skilled with Geogebra, mathematical graphics (still, animated, interactive), LaTeX, Mathematica, MATLAB, Python, R, video editing.

Experience with C, CSS, Fortran, Java, JavaScript, neural networks, Objective-C/Cocoa (iOS dev), SQL, VBA, web development, XHTML.

PROFESSIONAL EXPERIENCE

2008-Present Senior Consultant, White Associates, R and D LLC

Contracts with educational publishers to write projects, assignments, and solutions.

Writing algorithms for solving partial differential equations associated with groundwater flow for Neal Analytics and Microsoft.

Mathematical modeling of call options of securities in Islamic finance.

Modeling portfolios and writing algorithms for real-time static portfolio replication.

Development for an iOS application for statistical modeling and visualization.

2008-2009 Intern, Spencer Trask Collaborative Innovations

Worked with a venture capital company to build a crowd-based funding platform formerly used by the U.S. Department of Education.

Developed scoring, ranking, and vote-weighting algorithms and methodology.

Analyzed social network patterns, user backgrounds, and past performance to build a system with continuing feedback to make funding decisions.

2002-2009 Owner/Operator, RTW Web Services

Founded a boutique web presence and development support company.