Mary Wilkerson
mwilkerso@coastal.edu

EDUCATION

Ph.D., Mathematics, Spring 2012, Virginia Tech, Blacksburg, VA
Dissertation: Finite Subdivision Rules from Matings of Quadratic functions: Existence and Constructions
Advisor: William Floyd

M.S., Mathematics, Spring 2008, Virginia Tech, Blacksburg, VA
Thesis: Circle Packing in Euclidean and Hyperbolic Geometries

B.S., Mathematics Education/Psychology; Spring 2007, Virginia Tech, Blacksburg, VA

PROFESSIONAL INTERESTS

Teaching: Calculus and other analysis-based courses
Research: Complex dynamics, combinatorial dynamics, discrete complex analysis

TEACHING

Associate Professor, Department of Mathematics & Statistics, Coastal Carolina University, Conway, SC
2018 – Present

Assistant Professor, Department of Mathematics & Statistics, Coastal Carolina University, Conway, SC
2012 – 2018

Visiting Faculty Member, Summer Mathematics Institute, Cornell University, Ithaca, NY
Summer 2012

Graduate Teaching Assistant, Department of Mathematics, Virginia Tech, Blacksburg, VA
2007 –2012 (Senior GTA Distinction 2011 –2012)

CLASSES TAUGHT/COORDINATED

Precalculus	(previous coordinator for VT Math 1015)
Calculus I	(VT Math 1205, CCU Math 160)
Calculus II	(VT Math 1206, previous coordinator for CCU Math 161)
Calculus II for Biology/Chemistry	(VT Math 2016)
Calculus III	(CCU Math 260)
Geometry for Middle School Teachers	(CCU Math 330)
Foundations of Geometry	(CCU Math 331)
Linear Algebra	(CCU Math 344)
Topology	(CCU Math 434)
Complex Variables	(CCU Math 452)
Real Analysis I and II	(Cornell Summer Math Institute)

RESEARCH

S1 Parameterization and an Extension of the Pseudo-equator, in preparation

Iterated Monodromy Groups and Mating, in preparation

Rational Maps from Quadratic Polynomial Matings via Thurston's Algorithm, Discrete & Continuous Dynamical Systems - Series S. doi: 10.3934/dcdss.2019151 (2019).

On a Generalization of Wolff's Ideal Theorem for Certain Subalgebras of $H^{\infty}(D)$, joint work with D. Banjade, M. Ephrem, A. Incognito, Rocky Mountain Journal of Mathematics, Volume 47, Number 8 (2017), 2535-2544.

Subdivision Rule Constructions on Critically Preperiodic Quadratic Matings, New York Journal of Mathematics, Volume 22 (2016): 1055-1084.

TALKS/WORKSHOPS

Obtaining Rational Maps from Quadratic Matings using Thurston's Algorithm, April 2, 2017; invited talk in Special Session on Discrete Structures in Conformal Dynamics and Geometry, AMS Spring Central Sectional Meeting; Indiana University, Bloomington, IN

First Generation Faculty and Staff Panel, March 1, 2017; Panelist in Department of Sociology session on advice for first-generation college students, Coastal Carolina University, Conway, SC

Rational Maps from Polynomial Matings Using Combinatorial Methods and Thurston's Algorithm, July 5, 2016; contributed talk in 11th American Institute of Mathematical Sciences Conference on Dynamical Systems and Differential Equations, Orlando, FL

Math: The Fine Line Between Order and Chaos, October 29, 2015; November 11, 2014; October 22, 2013; contributed talk in One Talk One Time series, Coastal Carolina University, Conway, SC

Matings of Quadratic Polynomials I, II, and III, October 23, October 30, and November 6, 2014; three-part lecture series in Mathematics Faculty Research Colloquium, Coastal Carolina University, Conway, SC

Finite Subdivision Rules from Matings of Quadratic Polynomials, April 3, 2014; invited talk in Applied Mathematics Seminar, University of Wisconsin-Milwaukee, Milwaukee, WI

Matings of Quadratic Maps, February 28, 2014 and March 16, 2012; invited talk in Visitor's Day Seminar, Virginia Tech, Blacksburg, VA

Matings of Critically Preperiodic Polynomials: Dynamics through Tile Subdivision, January 17, 2014; invited talk in AMS Special Session on Complex Dynamics, Joint Mathematics Meetings, Baltimore, MD

Dynamics of Mated Quadratics through Tile Subdivision, March 16, 2013; contributed talk in MAA Spring Southeastern Section meeting, Winthrop University, Rock Hill, SC

Building Confident Learners, October 19, 2011; workshop co-led with Eileen Shugart and VT Math Department SGTAs in GTA Teaching Certification Workshop Series, Virginia Tech, Blacksburg, VA

Finite Subdivision Rules from Matings of Rational Maps, December 3, 2010; contributed talk in Complex Dynamics Seminar, Virginia Tech, Blacksburg, VA

HONORS/AFFILIATIONS

Project NExT Fellow	accepted 2013
Complex Dynamics Mathematics Research Communities	accepted 2013
VT Mathematics Department Outstanding GTA Award recipient	2012

SERVICE

Math Department P&T Committee	2020—Present
Math Department TT Search Committee (Chair)	2019—2020
Math Department Curriculum Committee	2016—Present
Coastal Carolina University High School Mathematics Contest Director	2015—Present
Coastal Carolina University High School Mathematics Contest Writer	2013—Present
Math Department Recruitment and Retention Committee	2013—2016
Project NExT panel co-organizer for Joint Mathematics Meetings	2014
Safe Zone Planning Committee	2013