GEORGE H. SEELINGER—CV

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RESEARCH INTERESTS

Algebraic combinatorics: symmetric functions, Schubert calculus, Macdonald polynomials

EDUCATION

Doctor of Philosophy, Mathematics — University of Virginia, Charlottesville, Virginia
Advisor: Jennifer Morse — *Expected May 2021*

Master of Science, Mathematics — Loyola University Chicago, Chicago, Illinois
August 2015

Bachelor of Science, summa cum laude — Loyola University Chicago, Chicago, Illinois
Major: Mathematics and Computer Science — *May 2015*
Interdisciplinary Honors

PUBLICATIONS

A shuffle theorem for paths under any line
Joint with J. Blasiak, M. Haiman, J. Morse, and A. Pun

· In preparation.

K-theoretic Catalan functions
Joint with Jonah Blasiak and Jennifer Morse

· In preparation.

Canonical idempotents of multiplicity-free families of algebras — arxiv:1606.08900
Joint with Stephen Doty and Aaron Lauve

· L'Enseignment Mathematique, **64** (2018) 23–63.

TALKS

Philadelphia Area Combinatorics and Algebraic Geometry Seminar — February 6, 2020
University of Pennsylvania

· Title: *K-theoretic Catalan functions*

Garsiafest 90: Future Directions in Algebraic Combinatorics — June 18, 2019
The Scripps Seaside Forum, San Diego, CA. Lightning Talk

· Title: *Raising operators in Schubert calculus*

Mid-Atlantic Algebra, Combinatorics, and Geometry Workshop — May 4, 2019
Drexel University. Poster

· Title: *K-theoretic Catalan functions*

University of Virginia Representation Theory Reading Seminar — 2016 – 2020
Seminar talks on various topics; selected titles listed

· "k-Schur functions as Schubert representatives for the affine Grassmannian" — Spring 2020
· "Introduction to the affine Grassmannian" — Spring 2020

· "Chern class computations, flag manifolds, and the Grassmannian" Spring 2019
· "Schur-Q functions and related combinatorics" Fall 2018
· "Applications of the Jacobson-Morozov Theorem" Fall 2017
· "The principal, subregular, and minimal nilpotent orbits" Fall 2016

Sage Days 65 June 11, 2015
Loyola University Chicago

· Title: *Orthogonal idempotents in semisimple Brauer algebras*

TEACHING EXPERIENCE

Instructor of Record University of Virginia

· MATH 1310: Calculus I (flipped classroom) *Fall 2019*
· MATH 1220: Survey of Calculus II *Spring 2018*
· MATH 1210: Survey of Calculus I *Fall 2017*

HONORS, AWARDS, AND FELLOWSHIPS

· Dorothy M. Batten Jefferson Fellowship, 2016–2021, by the Jefferson Scholars Foundation, UVa
· Phi Beta Kappa Honor Society, inducted May 7, 2015
· Alpha Sigma Nu Honor Society, induced October 14, 2014

SERVICE AND OUTREACH

Department

· **Member and Webmaster, Association for Women in Mathematics** Fall 2018–Present
Help maintain the UVa AWM chapter's website and developed a blog for other members to post content.
· **Mentor, Directed Reading Program at University of Virginia** Fall, 2018
Guided my undergraduate DRP mentee, Dylan Hunt, through a machine learning textbook and helped him prepare for a presentation at UVa's Math Club.
· **UVa Math Ambassador** Fall 2017– Spring 2019
UVa's Mathematics outreach program to Albemarle County and Charlottesville city schools.
· **Panelist, Prospective Graduate Student Open House** Spring 2018

Professional

· **Organizing committee, Mid-Atlantic Algebra, Geometry, and Combinatorics Workshop** Spring, 2020
Cancelled due to Covid-19

University

· **Jefferson Scholar Selection Weekend Seminar Planner and Leader, Jefferson Scholars Foundation, UVa** Spring 2020
Cancelled due to Covid-19
· **Panelist, Institute for Leadership and Citizenship Graduate School Panel Jefferson Scholars Foundation, UVa** Summer 2018

TECHNICAL STRENGTHS

Computer Languages	Proficiency with: Python, Sage, Java and Scala.
	Experience with: Mathematica, R and C/C++.
Languages	Fluent: English
	Elementary Proficiency: French, Italian.