HUGH W. DENNIN

CIRRICULUM VITAE

Email: dennin.3@osu.edu Research Interests: Algebraic Geometry, Representation Theory, Algebraic Combinatorics, Schubert Calculus

EDUCATION

The Ohio State University	Fall 2022–Present
Ph.D. Student in Mathematics	
University of Florida	Fall 2018–Spring 2022
B.S. in Mathematics	GPA 3.96 / 4.00
Minor in Electrical Engineering	
Honors: cum laude, Phi Beta Kappa, University Honors Program	

PAPERS

Combinatorial identities for Schubert and Grothendieck polynomials via pipe dreams	In preparation
Pattern bounds for principal specializations of β -Grothendieck Polynomials	June 2022
arXiv preprint 2206.10017	

EXPERIENCE / TALKS

KOALA 2024 – University of Kentucky	May 2024
• 5 minute lightning talk titled Cauchy identities for Schubert polynomials via pipe dreams	
OSU Algebraic Geometry Seminar – The Ohio State University	February 2024
• 50 minute talk titled Differential identities for Schubert polynomials via pipe dreams	
LACIM Seminar – Université du Québec	January 2024
• 50 minute talk titled Differential identities for Schubert polynomials via pipe dreams	
Student Algebraic Geometry Seminar – The Ohio State University	January 2024
• 50 minute talk titled $1 + 1 = 2$: Counting lines with equivariant cohomology	
Schubert Seminar	December 2023
• 20 minute talk titled Differential identities for Schubert polynomials via pipe dreams	
UIUC Schubert Summer School – University of Illinois, Urbana-Champaign	June 2023
 10-day Schubert calculus summer school/conference hosted by UIUC 	
2023 CMS Summer Meeting – University of Ottawa	June 2023
• 20 minute talk titled Bijective Proofs of Derivative Formulas for Schubert Polynomials	
• Part of the Equivariant Schubert Calculus and Beyond session	
Student Algebraic Geometry Seminar – The Ohio State University	March 2023
• 50 minute talk titled <i>Polytopes and the Upper Bound Conjecture</i>	
Student Geometric Group Theory Seminar – The Ohio State University	November 2022
• 50 minute talk titled An Introduction to Reflection Systems and Coxeter Systems	
Student Algebraic Geometry Seminar – The Ohio State University	October 2022
• 50 minute talk titled <i>Life Could be a Pipe Dream</i>	
OSU Algebraic Geometry Seminar – The Ohio State University	September 2022
• 1 hour talk titled <i>Pattern bounds for principal specializations of</i> β <i>-Grothendieck polynomials</i>	
Connecticut Summer School in Number Theory '22 – University of Connecticut	April 2022
• Week-long number theory summer school/conference hosted by UConn, Storrs	
Undergraduate Mathematics Research Symposium '22 – University of Florida	April 2022
• 15 minute talk titled Principal specializations of Schubert polynomials for 1243-avoiding permut	tations

Undergraduate Research Scholar Program – Fundación Grupo Puntacana, DR

- 10-day research-driven study abroad in the Punta Cana region of the Dominican Republic
- Evaluated the socioeconomic and ecological impacts of regional tourism development
- Mapped the infrastructure and waste systems of the 23 communities of Verón, identifying waste management challenges and opportunities
- Presented research findings to the Fundación's Center for Sustainability and community leaders

TEACHING

MATH 1172: Engineering Mathematics A – The Ohio State University	Fall 2024
• GTA position for 2 recitation sections.	
MATH 1151: Calculus I – The Ohio State University	Fall 2023
• GTA position for 2 recitation sections.	
MAP2302: Elementary Differential Equations – University of Florida	Aug–Dec 2021
Undergraduate grader position	

TECHNICAL SKILLS

Programming: SageMath (Python), MATLAB, Java, C++, VHDL **Typesetting:** LATEX

AWARDS / HONORS

NSF GRFP 2024 Honorable Mention Tibor Radó Fellowship Recipient OSU University Fellowship Recipient University of Florida Honors Program University of Florida Undergraduate Research Scholars Program Named to the President's Honor Roll at UF (4 semesters) National Merit Scholarship Recipient