

Nolan Schock

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📄 [nschock.github.io](https://github.com/nschock)

Education

2017–2022 **Ph.D. in Mathematics**, *University of Georgia*, Athens, GA.

(expected) Advisor: Valery Alexeev

2013–2017 **B.S. in Mathematics**, *California Polytechnic State University*, San Luis Obispo, CA,
Minor in Computer Science.

Advisor: Rob Easton

Research Interests

Algebraic geometry and tropical geometry: Intersection theory and birational geometry of moduli spaces, Gromov-Witten theory, compactifications of moduli of higher-dimensional varieties, matroid theory, tropical intersection theory, tropical moduli spaces.

Publications and Preprints

- *Quasilinear tropical compactifications*. Preprint; arxiv:2112.02062.
- *Intersection theory of the stable pair compactification of the moduli space of six lines in the plane*. **European Journal of Mathematics** (2021).
- *Classically integral quadratic forms excepting at most two values*. With M. Barowsky, W. Damron, A. Mejia, F. Saia, K. Thompson. **Proc. Amer. Math. Soc.** 146 (2018), 3661–3677.

Awards and Honors

- NSF RTG Graduate Student Research Fellowship, University of Georgia, 2017–2018, Fall 2020
- Bryant Russell Memorial Award, California Polytechnic State University, 2017
- Robert P. Balles Mathematics Scholarship, California Polytechnic State University, 2017
- George H. McMeen Scholarship, California Polytechnic State University, 2016

Teaching

- Fall 2021 **Instructor of Record**, *MATH 1113 Precalculus (2 sections)*, University of Georgia.
- Spring 2021 **Instructor of Record**, *MATH 2250 Calculus I (1 section)*, University of Georgia.
- Spring 2020 **Instructor of Record**, *MATH 2250 Calculus I (1 section)*, University of Georgia.
- Fall 2020 **Instructor of Record**, *MATH 2250 Calculus I (1 section)*, University of Georgia.
- Spring 2019 **Instructor of Record**, *MATH 1113 Precalculus (2 sections)*, University of Georgia.
- Fall 2018 **Instructor of Record**, *MATH 1113 Precalculus (1 section)*, University of Georgia.
- Fall 2019, **Tutor**, *Math Department Study Hall*, University of Georgia.
- Spring 2020
- Spring 2017 **Workshop Facilitator**, *MATH 316 Linear Algebra II Workshop*, California Polytechnic State University.
- Fall 2016, **Workshop Facilitator**, *MATH 491 Abstract Algebra I Workshop*, California Polytechnic State University.
- Winter 2017

Mentorship

- Fall 2021 **Mentor**, *Directed Reading Program*, University of Georgia.
Project: Applications of algebraic geometry
Student: Joseph Lang
- Spring 2019 **Mentor**, *Directed Reading Program*, University of Georgia.
Project: Classification of Surfaces
Student: Winston Hayes Way

Talks

- Sep. 2021 Quasilinear tropical compactifications *Algebraic Geometry Seminar, University of Georgia*
- Aug. 2021 Tropical intersection theory *Mock AMS Conference, University of Georgia*
- Jul. 2021 Chow rings of tropical compactifications *GAEL XXVIII, Virtual*
- Jun. 2021 Tropical curves, graph complexes, and top weight cohomology of M_g *Classical Reading in Algebraic Geometry Seminar, University of Georgia*
- Mar. 2021 Intersection theory on $\overline{M}(r, n)$ and $\overline{Y}(r, n)$ *American Graduate Student Algebraic Geometry Seminar, Virtual*
- Mar. 2021 Del Pezzo surfaces, root systems, and moduli *Graduate Student Seminar, University of Georgia*
- Nov. 2020 Effective cones and moduli of stable hyperplane arrangements *Oral Exam, University of Georgia*
- Sep. 2020 What should cohomology look like? *Graduate Student Seminar, University of Georgia*
- Sep. 2020 Intersection theory of $\overline{M}(3, 6)$ *Algebraic Geometry Seminar, University of Georgia*
- Aug. 2020 Intersection theory and moduli *Mock AMS, University of Georgia*
- Apr. 2020 Moduli of stable hyperplane arrangements *Graduate Student Seminar, University of Georgia*
- Feb. 2020 Grothendieck-Riemann-Roch *Classical Reading in Algebraic Geometry Seminar, University of Georgia*
- Aug. 2019 Enumerative geometry of conics *Mock AMS, University of Georgia*
- Mar. 2019 Moduli of n -pointed rational curves *Graduate Algebraic Geometry Seminar, University of Georgia*
- Feb. 2019 Kontsevich's formula and enumerative geometry *Graduate Student Seminar, University of Georgia*
- Sep. 2018 Introduction to category theory (2 lectures) *SMARTS, University of Georgia*
- Aug. 2018 Geometry and Galois theory *Mock AMS, University of Georgia*
- Feb. 2018 Galois categories *Étale Fundamental Group Reading Seminar, University of Georgia*
- Jan. 2017 Quadratic forms excepting at most two values *Joint Math Meetings, Atlanta*
- Aug. 2016 Quadratic forms excepting at most two values *Mock AMS, University of Georgia*

Posters presented

- Oct. 2021 Quasilinear tropical compactifications *AGNES, Boston College*

Programming Languages

Magma, Sage, Macaulay2, Lisp, Java, C, Javascript, Python.