Eduardo Torres Davila

| CONTACT INFORMATION | University of Minnesota
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EDUCATION		
	2020 – present	**University of Minnesota** PhD Candidate
	2020 – 2023	**University of Minnesota** MS in Mathematics
	2016 – 2020	**San Diego State University** BS in Applied Mathematics Minor: Computer Science

AWARDS

College of Science & Engineering Graduate Fellowship (2020 – 2023)

PUBLICATIONS

Numerical semigroups, polyhedra, and posets II: locating certain families of semigroups, with Jackson Autry, Abigail Ezell, Tara Gomes, Christopher O'Neill, Christopher Preuss, & Tarang Saluja.
Advances in Geometry. (doi) (arXiv:1912.04460)

Numerical semigroups, polyhedra, and posets III: minimal presentations and face dimension, with Tara Gomes & Christopher O'Neill.
Electronic Journal of Combinatorics. (doi) (arXiv:2009.05921)

PREPRINTS

Visualizing the support of Kostant's weight multiplicity formula for the rank two Lie algebras, with Pamela E. Harris, Marissa Loving, Juan Ramirez, Joseph Rennie, Gordon Rojas Kirby, & Fabrice O. Ulysse.
To appear in Involve. (arXiv:1908.08405)

CONFERENCES /PROGRAMS ATTENDED

MSRI/SLMath Summer School, University of Notre Dame, May - June 2023.
  • Commutative Algebra and its Interaction with Algebraic Geometry.
AWM Research Symposium, University of Minnesota, June 2022.
GradMoCCA, University of Minnesota, May 2022.
SGPs Research Seminar, San Diego State University, 2020.
Joint Math Meetings, Denver, Colorado, January 2020.
  • Undergraduate Poster Session (Honorable Mention).
Field of Dreams, Washington University in St. Louis, November 2019.
SACNAS National, Honolulu, Hawaii, October 2019.
Math Alliance Facilitated Graduate Applications Process (F-GAP).

MENTORSHIP /TEACHING EXPERIENCE		
	Fall 2023	*Graduate Teaching Assistant: Math 1151 - Precalculus II.* Department of Mathematics, University of Minnesota.
	Summer 2022	*PolyMath Jr. REU Assistant Mentor.*
	Spring 2022	*Graduate Teaching Assistant: Math 1271 - Calculus I.* Department of Mathematics, University of Minnesota.

MATHEMATICS RESEARCH EXPERIENCE	Summer 2020	*Funded Research in Combinatorial & Commutative Algebra.* **Advisor:** Christopher O'Neill, Department of Mathematics, San Diego State University.
	2019 – 2020	*Funded Research in Polyhedral Geometry.* **Advisor:** Christopher O'Neill, Department of Mathematics, San Diego State University.
	Summer 2019	*REU in Applied Combinatorics & Discrete Mathematics* (**MSRI-UP**). Mathematical Science Research Institute, Berkeley, CA, USA. **Advisor:** Pamela E. Harris, Department of Mathematics, Williams College.
	Spring 2019	*Research in Numerical Semigroups.* **Advisor:** Christopher O'Neill, Department of Mathematics, San Diego State University.

TALKS /PANELS	University of Minnesota, Oral Examination, April 2023 *Finding Noetherian Operators for a Differential Primary Decomposition*
	University of Minnesota, CA+ Turbo Talk, April 2023 *Differential Primary Decompositions*
	University of Minnesota, Mathematics of Climate Seminar, July 2022 *The fundamental theorem of dynamical systems*
	University of Minnesota, Women in Math, February 2022 *Completing your core requirements panel*
	University of Minnesota, Math Club, November 2021 *Research experience for undergraduates panel*
	San Diego State University, SGPs Resarch Seminar, September 2020 *Minimizing minimal presentations*
	San Diego State University, SGPs Research Seminar, March 2020 *Minimal presentations of Kunz posets*
	Mathematical Sciences Research Institute, MSRI-UP, July 2019 *Visualizing the support of Kostant's weight multiplicity formula for the rank two Lie algebras*

WRITING CONTRIBUTIONS	*Networking Basics for Math Undergrads*, with Joanne Beckford, Alex Christensen, Pamela E. Harris, Lucy Martinez, & Fabrice O. Ulysse, e-Mentoring Network in the Mathematical Sciences - connecting students and mentors. AMS Blogs. July 21, 2020.
	Bank of REU/Grad Fair Questions, with Pamela E. Harris & Lucy Martinez, e-Mentoring Network in the Mathematical Sciences - connecting students and mentors. AMS Blogs. January 24, 2020.

RELEVANT SKILLS	Technical Skills:	Macaulay2, Python, SageMath, Git
	Soft Skills:	Mentoring/Teaching, Bilingual (English/Spanish)