Curriculum Vitae – Marisa Gaetz

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EDUCATION

Massachusetts Institute of Technology *Fall 2020 –*
Ph.D. Candidate in Mathematics, advised by David Vogan GPA: 5.0/5.0

Massachusetts Institute of Technology *2016 – 2020*
B.S. Mathematics and Minor in Philosophy GPA: 4.9/5.0

RESEARCH INTERESTS

Representation theory, combinatorics, algorithms & complexity theory.

SELECTED AWARDS

MIT Mathematics Award for Service to the Math Community 2022
George Lusztig PRIMES Mentorship for Exceptional Mentor Service 2022
MLK Jr. Leadership Award 2021
NSF Graduate Research Fellowship 2020
Fannie & John Hertz Fellowship 2020
Alice T. Schafer Mathematics Prize Honorable Mention 2020

SELECTED PAPERS

- M. Gaetz. Dual pairs in complex reductive groups. `arXiv:1910.07592`.
- M. Gaetz. Anti-power j-fixes of the Thue-Morse word, *Discrete Math. Theor. Comput. Sci.* **23** (2021) 1.
- M. Gaetz and C. Ji. Enumeration and extensions of word-representants, *Discrete Appl. Math.* **284** (2020).
- B. Flanagan, M. Gaetz, M. Scheepers, and M. Shanks. Quantifying CDS sortability of permutations by strategic pile size, *Discrete Math. Algorithms Appl.* **12** (2020) 1.
- M. Gaetz, W. Hardt, and S. Sridhar. Support equalities among ribbon Schur functions, *Electron. J. Combin.* **26** (2019) 3, `P3.52`.

SELECTED SERVICE & TEACHING

Coordinator of MIT's PRIMES Circle mathematics program for high school students ..... 2021 –
Co-Founder and Co-Director of Brave Behind Bars (computer education for incarcerated people) ..... 2021 –
Head of The Educational Justice Institute's Computer Education Committee ..... 2020 –
Member of MIT Math Dept.'s Diversity and Community Building Committee ..... 2018 –
Organizer of MIT's Pure Math Graduate Student Seminar ..... 2021 – 2022
Mathematics Mentor for MIT's Directed Reading Program ..... Jan. 2021
Mathematics Mentor for MIT's Menezes Challenge PRIMES Circle Program ..... 2018 – 2020

OTHER EXPERIENCE

AMSI-MSRI Winter School: *New Directions in Representation Theory* ..... Summer 2022
MIT Undergraduate Research Opportunities Program: *Representation Theory* ..... 2019 – 2020
MIT Directed Reading Program (DRP): *Representations of Lie Algebras* ..... Jan. 2019
University of Minnesota Duluth REU: *Combinatorics on Words* ..... Summer 2018
University of Minnesota Twin Cities REU: *Algebraic Combinatorics* ..... Summer 2017

LANGUAGES

- **Programming/Markup**: LaTeX, Python, HTML, CSS, JavaScript