

Samuel Sottile

✉ sottile@stanford.edu

Research Interests

Symplectic Geometry, Lagrangian Torus Fibrations, Mirror Symmetry, Toric Degenerations.

Education

- Sep 2024 - **PhD Mathematics**, *Stanford University*.
 - Advisor: Mohammed Abouzaid
- Oct 2023 - **MASt Mathematics**, *University of Cambridge*.
- Jun 2024
 - Part III Mathematics
 - Churchill College
 - With Distinction
- Sep 2019 - **B.S. Mathematics**, *Michigan State University*.
- May 2023
 - Honors College
 - GPA: 4.0

Publications

- Fan, C., Kim, E., Shors, I., Plzak, Z., Sottile, S., Zeytuncu, Y. (2023). *Spectral Analysis of the Kohn Laplacian on Lens Spaces*. *The Journal of Geometric Analysis*. <https://doi.org/10.1007/s12220-022-01164-y>
- Jao, K., Promislow, K., Sottile, S. (2023). *Defects and Frustration in the Packing of Soft Balls*. *Physica D: Nonlinear Phenomena*. <https://doi.org/10.1016/j.physd.2022.133631>
- Rosevear, A., Sottile, S., Wong, W.W.Y. (2021) *Geodesic Motion on $SL(n)$ with the Hilbert–Schmidt Metric*. *La Matematica*. <https://doi.org/10.1007/s44007-021-00002-x>

Preprints

- Sottile, S. (2026) *Almost Toric Fibrations in Higher Dimensions* [In preparation]
- Cohen, A., Rastogi, Y., Sottile, S., Zeytuncu, Y. (2025). *Spectral Analysis of the Kohn Laplacian on Sphere Quotients*. <https://arxiv.org/abs/2509.11463> [Submitted]

Work Experience

- Nov 2020 - **Undergraduate Learning Assistant**, *Math Department, Michigan State University*.
- May 2021
- Mar - Apr **Tutor, Math Learning Center**, *Math Department, Michigan State University*.
- 2020, Nov -
- Dec 2020

Honors and Awards

2024 **National Science Foundation Graduate Research Fellowship (NSF GRF).**

2023 **Churchill Scholarship.**

2023 **Dr. Marshall and Barbara Hestenes Endowed Scholarship**, *Math Department, Michigan State University.*

2022 **Nominated for Marshall Scholarship by Michigan State University.**

2022 **Goldwater Scholarship.**

2022 **L. C. Plant Mathematics Scholarship Award**, *Math Department, Michigan State University.*

2020 **Herzog Competition Third Prize**, *Math Department, Michigan State University.*

All **Dean's List**, *Michigan State University.*

Semesters

Honors College, *Michigan State University.*

Honors Excellence Scholarship, *Honors College, Michigan State University.*

2019 **Finalist, Alumni Distinguished Scholarship Competition**, *Michigan State University.*

2019 **National Merit Finalist.**

Activities

Sep 2025 - **Organizer, Student Symplectic Geometry Seminar.**

Sep 2020 - **President, Michigan State University Math Club.**

May 2022 ○ Restarted the Math Club at Michigan State University as a sophomore.

Technical Skills

○ Programming Languages:

- Python
- C
- C++
- Java
- Latex