Ben Feuerstein

⊙ Tel Aviv, Israel   ✉ bf1@mail.tau.ac.il   🔗 BenFeu.com   in BenFire   ⌥ BenFirev

Education

Tel Aviv University, Israel.
M.Sc. Mathematics, 2022 – 2025 (expected).

- **Thesis:** "On the Hofer Growth Dichotomy Conjecture for Hamiltonian Flows on Symplectic Surfaces" (In progress). Advised by Prof. Leonid Polterovich and Prof. Lev Buhovsky.
- **Current GPA:** 98.5.
- **Fully Funded Scholarship.**

Technion – IIT, Israel.
B.Sc. Mathematics, 2019 – 2022.

Publications & Preprints

In progress, available on the arXiv: L. Buhovsky, B. Feuerstein, L. Polterovich, and E. Shelukhin. A dichotomy for the Hofer growth of area preserving maps on the sphere via symmetrization, Preprint. 2024 🔗 arXiv:2408.08854.

Talks

"Dichotomy of Hofer Growth Type on the 2-Sphere", Israel Mathematical Union, student talks day, September 2024.

Teaching Experience

- **Teaching Assistant, Tel Aviv University.**
  Calculus 2 for Engineers (Spring 2023, Spring 2024), Linear Algebra for Engineers (Fall 2023, Fall 2024).
- **Teaching Assistant, College of Management.**
  Linear Algebra 2 For Computer Science (Summer 2023).
- **Course Grader, Tel Aviv University.**
  Calculus 1 For Chemistry (Fall 2022).

Additional Research Experience

- **Mathematical research project, Technion, Spring 2022.** Studied the extension of the notion of surface area measures of convex bodies to the family of Log-concave functions, and conjectured an analogue to Minkowski's existence theorem of surface area measures for this family. Under the supervision of Prof. Liran Rotem.
- **Research exposure week summer program, Technion, 2021**. Studied Spectral Graph Theory, and the classification of a class of graphs called Corona graphs. I wrote Python code to compute and visualize all Corona graphs. Under the supervision of Prof. Avi Berman and Dr. Suliman Hamud.

Additional Skills and Interests

- **Languages:** Hebrew - Native, English - Fluent.
- **Citizenship:** US, Israel.
- **Fluent in LaTeX.**
- **Programming:** Python, Javascript, Excel/VBA, C#.
- I enjoy writing software to visualize geometrical concepts, like level sets of Morse functions on surfaces and Hamiltonian flows.