

# MATH RESEARCH PROJECTS

**Technion, September 22-26, 2019**

**The faculty of Mathematics at the Technion  
is inviting motivated undergraduate students**  
(finishing their 2<sup>nd</sup> and 3<sup>rd</sup> year\*)

**to experience mathematical research in a week of projects**

**The projects will be mentored by professors, postdocs and  
graduate students from the Faculty of Mathematics.**

Each group will consist of 2-4 students working on the same research topic. In addition, the program includes social gatherings with the faculty members. Housing, meals, and a stipend will be provided.

## **Projects and mentors:**

- ▶ Avi Berman: **Expander graphs**
- ▶ Nick Crawford: **Fermions and spanning forests**
- ▶ Victor Kolobov and Simeon Reich: **Projection Methods**
- ▶ Ivan Levcovich and Alex Margolis: **Quasi-isometries of trees and infinite ended spaces**
- ▶ Erez Nesharim, Uri Shapira and Shucheng Yu: **Linear flows in the space of lattices**
- ▶ Amy Novick-Cohen: **Geometric motions**
- ▶ Tali Pinsky: **The Lie algebra of modular knots**
- ▶ Liran Rotem: **The geometric mean of convex bodies**
- ▶ Shoham Sabach and Shimrit Shtern: **Classifying critical points of non convex quadratic functions**
- ▶ Orr Shalit: **Numerical explorations of open problems in operator theory**

**Organizers: Michael Khanevsky, Nir Lazarovich, Tali Pinsky and Ron Rosenthal**



Application form and further details are available on the website:  
<https://cms-math.net.technion.ac.il/summer-projects-2019/>  
The number of participants is limited. Please apply as soon as possible.

(\*) Registration is also open to master students at the beginning of their studies.