

Department of Mathematics, BGU

Colloquium

On *Tuesday, June ,17 2025*

At *14:30 – 15:30*

In *Math 101-*

Lev Buhovski (TAU)

will talk about

Courant, Bézout and persistence

Abstract: It is possible to measure oscillations of functions by means of the theory of persistence modules and barcodes. I will explain how Sobolev norms can control such measurements. Applications include generalizations of the Courant nodal domain theorem and the Bézout theorem. The talk is based on joint works with Jordan Payette, Iosfi Polterovich, Leonid Polterovich, Egor Shelukhin, and Vukašin Stojisavljević, and on a joint work with Aleksandr Logunov and Mikhail Sodin.