Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, November ,5 2020*

At *11:10 – 12:00*

In *Online*

Arielle Leitner (Weizmann Institute)

will talk about

Deformations of generalized cusps on convex projective manfiolds

Abstract: Convex projective manfiolds are a generalization of hyperbolic manfiolds. Koszul showed that the set of holonomies of convex projective structures on a compact manfiold is open in the representation variety. We will describe an extension of this result to convex projective manfiolds whose ends are generalized cusps, due to Cooper-Long-Tillmann. Generalized cusps are certain ends of convex projective manfiolds. They may contain both hyperbolic and parabolic elements. We will describe their classfiication (due to Ballas-Cooper-Leitner), and explain how generalized cusps turn out to be deformations of cusps of hyperbolic manfiolds. We will also explore the moduli space of generalized cusps, it is a semi-algebraic set of dimension n^2-n, contractible, and may be studied using several dffierent invariants. For the case of three manfiolds, the moduli space is homeomorphic to R^2 times a cone on a solid torus.

Please Note the Unusual Place!