Department of Mathematics, BGU

BGU Probability and Ergodic Theory (PET) seminar

On *Thursday, June ,20 2019*

At *11:10 − 12:00*

In *101-*

Dina Barak (Ben-Gurion University)

will talk about

Maximum of exponential random variables and Hurwitz's zeta function

Abstract: A problem, arising naturally in the context of the coupon collector's problem, is the behavior of the maximum of independent geometrically distributed random variables (with distinct parameters). This question has been addressed by Brennan et al. (British J. of Math. & CS.:8 ,(2015) .(330-336 Here we provide explicit asymptotic expressions for the moments of that maximum, as well as of the maximum of exponential random variables with the same parameters. We also deal with the probability of each of the variables being the maximal one.

The calculations lead to expressions involving Hurwitz's zeta function at certain special points. We find here explicitly the values of the function at these points.