

Department of Mathematics, BGU

---

---

# Combinatorics Seminar

---

---

*On Tuesday, December 18, 2018*

*At 10:45 – 11:45*

*In 101-*

Ilan Karpas

will talk about

## **Frankl's conjecture for dense families.**

Abstract: A union closed family  $F$  is a family of sets, so that for any two sets  $A, B$  in  $F$ ,  $A \cup B$  is also in  $F$ . Frankl conjectured in 1979 that for any union-closed family  $F$  of subsets of  $[n]$ , there is some element  $i \in [n]$  that appears in at least half the members of  $F$ .

We prove that the conjecture is true if $ F  \geq 2^{n-1}$ , using tools from boolean analysis.
---