

המחלקה למתמטיקה, בן-גוריון

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## הסתברות ותורה ארגודית

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ביום שלישי, 21 ביוני, 2016

בשעה 10:50 – 12:00

ב-101 Math

ההרצאה

### Minimum and Mean

תינתן על-ידי

(Stanford) Feldheim Naomi

תקציר: Let  $X$  and  $Y$  be two independent positive unbounded random variables. Write  $\text{Min}_m$  for the event that  $\min(X, Y) < m$  and  $\text{Mean}_m$  for the event that  $(X+Y)/2 < m$ . We show that  $\text{Min}_m$  approaches  $\text{Mean}_m$  as  $m \rightarrow \infty$  (regardless of the distributions of  $X$  and  $Y$ ), and that  $\text{Mean}_m$  approaches  $\text{Min}_m$  as  $m \rightarrow 0$  (as long as  $X$  and  $Y$  are not concentrated at 0). This is a universal anti-concentration result, and has several implications. We discuss the elementary proof, but also provide several multiple-comparison conjectures and pose a log-concave measure. This work is joint with Ohad Feldheim.