

המחלקה למתמטיקה, בן-גוריון

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## קולוקוויום

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ביום שלישי, 8 בנובמבר, 2022

בשעה 14:30 – 15:30

ב-101 Math

ההרצאה

### and probability measures: word and maps Word geometry

חינתן על-ידי

University) (Northwestern Glazer Itay

**תקציר:** Given a word  $w$  in a free group  $F_r$  (e.g. elements  $r$  of set  $a$  on  $F_r$  group free  $a$  in  $w$  word  $a$ ), one can associate a word commutator  $w(x_1, \dots, x_r) = xyx^{(-1)}y^{(-1)}$ , and ask whether the equation  $w(x_1, \dots, x_r) = g$  has a solution in  $G$ . For  $w: G^r \rightarrow G$  a map suitable in set, the "size" of the solution set is estimated to be finite, compact, or generally more or finite, is  $G$  When sense. Haar- for  $w(x_1, \dots, x_r)$ , of distribution the analyzing of problem probabilistic  $SL_n(\mathbb{C})$ , as such group, algebraic an is  $G$  When  $G$ . in  $x_1, \dots, x_r$  elements random been have problems Such  $w$ . of fibers the of geometry the study to natural is it finite as such settings various in decades, few last the in studied extensively algebraic simple groups, Lie compact groups,  $p$ -adic compact groups, simple Lie for studied been have problems Analogous groups. arithmetic and groups,

and results, these of some mention will I talk, this In well. as maps word algebra  
approaches. algebraic and probabilistic the between connections tight the explain  
Avni. Nir and Hendel Yotam with works joint on Based