## המחלקה למתמטיקה, בן-גוריון

## lecture Special

undecidable is algebra Calkin the of automorphisms outer of Existence :**Title** ZFC in University Gurion Ben and Oregon of University ,*Phillips Christopher N.* :**Speaker** Negev the of

of L(H) algebra the of quotient the is Q algebra Calkin The **Abstract:** the by H space Hilbert dimensional infinite separable a on operators bounded is It operators). rank finite of ideal the of closure (the operators compact of ideal few a takes It .1941 in Calkin by studied first  $C^*$ -algebra, simple explicit an form the of is, that inner, is L(H) of automorphism every that prove to lines inner? Q of automorphisms all Are L(H) in u unitary some for  $a \mapsto uau^{-1}$ the Assuming ZFC. in undecidable is this ,Q of description concrete the Despite automorphisms inner) not is, (that outer are there (CH), Hypothesis Continuum called also (OCA; Axiom Coloring Open the Assuming .(2007 Weaver, with (joint .(2011 (Farah, inner are Q of automorphisms all Axiom), Todorcevic's

to intended are talks The results. both of proofs outline will we talks, these In follow will We theory. set and algebras operator both in people to accessible be uses which CH, under automorphisms outer of existence the of reproof Farah's the of some uses and proof, original the than machinery -algebra $C^*$  less much OCA. under nonexistence of proof the as ingredients same

proved, been have which results later about something say briefly very will We Calkin the of generalizations involving open, remain which problems as well as algebras. Calkin  $l^p$  and -algebras $C^*$  of algebras multiplier outer as such algebra, automorphisms reversing orientation of existence the whether open remains It ZFC. with consistent is algebra Calkin original the of

: יולי 18, 11:10–11:10, 2022 **.** 

(BGU) 28 Building ,104 Room :Location

 $https://www.math.bgu.ac.il/research/events/calkin-ncphillips: {\bf Web}$