

A GENERAL VERSION OF KAPLANSKY'S DIRECT-FINITENESS CONJECTURE

Fudan Topology Seminar

Speaker: Bingbing Liang

Soochow University

Time: Fri, Oct. 13th, 16:00-17:30

Venue: Room 102, SCMS

Abstract: The classical Kaplansky's direct-finiteness conjecture says that if a, b are two elements of a group ring KG for a field K and a group G satisfying that $ab=1$, then $ba=1$. Kaplansky proves the case that K is a field of characteristic zero and G is any group. Joint with Hanfeng Li, we prove a general case that K is replaced with a left Noetherian unital ring R and G is a sofic group. The tools of the proof are refined mean length functions defined on the RG -modules in connection with some category language.