



# ALGEBRA SEMINARS

## The replacement property for finite groups

By

**Baran Zadeoğlu**

(Bilkent)

**Abstract:** There is an ongoing effort to create a theory for groups and their generating sequences analogous to vector spaces and their basis. In this framework, one can define a generalized replacement property that applies to finite groups. Even though this property does not hold, in general, for groups, it does hold for large classes of groups, such as nilpotent groups. This talk aims to give an overview of some of the methods currently known to investigate whether the replacement property holds or not. The topic of generating sets of finite groups, in general, are understudied and has many open research problems. The main references for this talk is not yet published but will be public on Arxiv in the following months, under the authorship of Dan Collins. At this moment, some indirect references are: A. Lucchini. Finite soluble groups satisfying the replacement property, 2017 Dan Collins. Generating Sequences of Finite groups, Senior Thesis, 2010

**Date:** October 15, 2018

**Time:** 10:40 – 11:50

**Place:** SA141 Mathematics Seminar Room

\* Tea and cookies will be served before the talk. All are most cordially invited.