

# Representations of Finite Groups

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Representation theory is a very general method of analyzing symmetries in different mathematical structures.

It cuts across the lines between geometry, algebra and analysis.

The goal of this course is to describe general methods and approaches of representation theory.

This is a basic course for toar rishon.

## Books

I will use first chapters of the book by B. Simon "Representations of Finite and Compact Groups"  
Sometimes I will also refer to the book by J.-P. Serre "Linear Representations of Finite Groups"

## Home works.

Home works for this course will be given weekly. They constitute an important part of the course - many topics for which there is not enough time in the lectures will be discussed in homeworks.

Homeworks will be graded by Dmitry Gurevich (he is currently a Ph. D student at the Weizmann Institute).

Dimitry also agreed to give one hour seminar a week in which he will discuss the homeworks and also discuss other topics related to the material of the course.