

MA4198 PROJECT PROPOSAL (PROJECT CUM SEMINAR GROUP)

SUPERVISOR'S INFO

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PROJECT ID: PS2420-3

TITLE

Representation theory of finite groups

BRIEF DESCRIPTION OF PROJECT

If G is a finite group, then a *representation* of G is a group homomorphism from G to the group of invertible linear transformations on a finite dimensional complex vector space. The study of representations is called representation theory. In this project, you will learn the various fundamental concepts and theorems in representation theory.

EXPECTATION/S

Students taking on this project are expected to demonstrate a good understanding of the subject matter and exhibit strong problem-solving skills. Additionally, the project report should be well organized and clearly written.

PREREQUISITE/S (at level 3000 or below, with at most one course at level 3000)

MA2101 and MA2202.

READING REFERENCE/S

Benjamin Steinberg, Representation Theory of Finite Groups: An Introductory Approach. Universitext, Springer-Verlag, New York, 2012.