

GRADUATE SEMINAR

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The Macdonald Group

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CW 307.20

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Abstract:

According to Johnson (in his famous book *Presentations of Groups*), an *interesting group* is a finite group that admits a finite presentation with as many generators as relations. A more widely used synonym is finite group with deficiency zero. These are elusive groups, and few of them are known. A family of such groups was found by I. D. Macdonald. His groups are finite (in most cases) and can be defined by two generators and two relations. In this talk I will give a brief overview of the Macdonald group, define its 2-Sylow subgroup, and discuss the structure and automorphism group of the latter, as well as the isomorphism problem that arises when considering the family of all these finite 2-groups.