

**Robert Guralnick**

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will speak on

## Generation of finite groups

ABSTRACT: We are interested in the question of how many generators are needed for a finite group  $G$ ? In particular, the case of  $G$  a finite simple group is quite important. It follows from the classification of finite simple groups that every finite simple group can be generated by two elements. Miller around 1900 observed that the alternating groups can be generated by a pair of elements. We will discuss some probabilistic aspects of this question, some recent results and an application to the characterization of the solvable radical of a finite group (and certain families of infinite groups). We also show how this problem is related to some questions about algebraic groups.

MONDAY, OCTOBER 17, 2005

LECTURE AT 4:00 PM (#)

COFFEE, TEA, AND REFRESHMENTS FROM 3-5 PM.

ROOM 617, WACHMAN BUILDING  
DEPARTMENT OF MATHEMATICS