K-Theory, Quadratic Forms and Number Theory Seminar

Title: Character degrees and conjugacy class sizes of a finite group

Speaker: Prof. Sandro Mattarei (University of Trento/University of Nottingham)

Date: Fri 22nd June 2007 at 2:00PM

Location: Mathematical Sciences Seminar Room

Abstract: A variety of results are known which assert that certain properties of a finite group G can or cannot be inferred from knowledge of its (ordinary) character degrees (here considered with their multiplicities). Other results do a similar job starting from knowledge of the sizes of the conjugacy classes of G, which may be considered as analogous (or, perhaps more properly, dual) to the character degrees. There are similarities but also differences between the two types of results, and the correspondence between the two areas is far from being well understood. In this talk I will present a small selection of these results, partly new, and highlight the analogies.