Algebra and Number Theory Seminar

Title: Automorphisms of products of finite groups

Speaker: John Curran (Univ. of Otago, New Zealand)

Date: Mon 17th November 2008 at 4:00PM

Location: Mathematical Sciences Seminar Room

Abstract: Let G be a finite group which is a product of subgroups H and K. The talk considers how Aut G, the automorphism group of G, is related to the automorphism groups of H and K and certain central homomorphism groups. In particular, if G is a direct product of H and K, then the size and structure of Aut G can be nicely specified. If G is a semidirect product and the normal subgroup H is abelian, then Aut(G:H), the subgroups of automorphisms fixing H, can be specified and is again a semidirect product. Finally subgroups of Aut G will be considered where G = HK (and one subgroup is normal). Examples will be used throughout to illustrate the results.