Algebra and Number Theory Seminar

Title: New Results on Kloosterman Sums Modulo p^e

Speaker: Faruk Gologlu (UCD)

Date: Mon 27th September 2010 at 4:00PM

Location: Mathematical Sciences Seminar Room

Abstract: We give results on p-ary Kloosterman sums modulo powers of the characteristic where p is any prime. Given the difficulty of finding zeroes (or specific values) of Kloosterman sums using current techniques, giving divisibility results is the standard way of providing necessary conditions. When p = 2,3 the results are on the usual Kloosterman sums and when p¿3 we give a result on the minimal polynomial of the Kloosterman sum. These results are a combination of a number of co-works (all) with Gary McGuire and Richard Moloney and (some with) Petr Lisonek.