Algebra and Number Theory Seminar

Title: A question about vector space endomorphisms

Speaker: Dr Rachel Quinlan (NUIG)

Date: Mon 15th February 2010 at 4:00PM

Location: Mathematical Sciences Seminar Room

Abstract: Let V be a vector space of dimension n over a field F, and let End(V) denote the space of F-linear transformations of V. We will discuss the following question, which is motivated by a problem in finite group theory. Suppose that g is a non-zero element of End(V). What is the minimum possible dimension of a subspace X of End(V) not containing g but having the property that for every hyperplane H of V, there is an element of X that coincides with g on H?