Algebra and Number Theory Seminar

Splitting projective modules using Chern classes

Jean Fasel
LMU Munich

Abstract: Let X be a smooth affine variety of dimension d over a field k and let E be a vector bundle of rank r. If E splits off a free bundle of rank 1, then the Chern class $c_r(E)$ is trivial. If the base field k is algebraically closed and $r = d$ then M.P. Murthy (with N. Mohan Kumar when $d = 3$) proved that the converse statement holds. In this talk, we will discuss more general situations, namely $r = d$ over arbitrary fields and $r = d - 1$ over algebraically closed fields.

Tuesday, November 15, 2011, 3:00 pm
Mathematics and Science Center: E406

Mathematics and Computer Science
Emory University