



IMI

Instituto de Matemática Interdisciplinar

El programa de “Matemática Pura”, inicia las actividades dedicadas a la línea “Topología de variedades algebraicas complejas” (coordinada por J.M. Ruiz y E. Arrondo) con la siguiente conferencia:

“The topology of complex projective varieties of small codimension”

**Profesor Giorgio Ottaviani
(Universidad de Florencia)**

Abstract:

The Hartshorne conjecture says that a smooth projective variety of codimension c in the complex projective space of dimension n is a complete intersection if c is smaller than $n/3$. This fascinating statement challenges algebraic geometers since thirty years.

The complete intersection varieties have many simple topological properties, for example their Betti numbers are concentrated in the middle part. A classical result of Barth and Larsen says roughly that small codimension varieties looks like complete intersections with respect to their homology groups, giving a strong motivation for the Hartshorne conjecture. We will discuss these topics and we will give some examples of small codimension varieties constructed as degeneracy loci of vector bundle morphisms.

**Viernes, 27 de octubre de 2006
12:15 horas, AULA B-13
FACULTAD DE CIENCIAS MATEMÁTICAS
Universidad Complutense de Madrid**