

Harvard-M.I.T. Algebraic Geometry Seminar

CASTELNUOVO THEORY FOR HIGHER DIMENSIONAL VARIETIES

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In the end of the nineteenth century, G.Castelnuovo obtained a sharp bound for the genus of a projective curve in terms of its degree and codimension and classified curves with maximal genus. Ninety years later, J.Harris extended Castelnuovo's results to the case of the geometric genus of varieties of arbitrary dimension. However, unlike curves, higher dimensional varieties have many other important invariants, such as Betti, Chern, and Hodge numbers, the relationships between which are rather subtle. In my talk I'll explain why, nevertheless, all the above invariants are "asymptotically equivalent" to each other, how to bound them, and where to look for varieties with maximal invariants.

Tuesday, November 21st
3:00 p.m.
Harvard Science Center 507

<http://www-math.mit.edu/ags/>