

SEMINARIO DI GEOMETRIA

9 marzo 2016, h.15,00-16.00

Politecnico di Torino,
Dipartimento di Scienze Matematiche,
AULA BUZANO

Chikashi Miyazaki
(Kumamoto University)

The Castelnuovo-Mumford regularity and the Buchsbaum property of projective varieties

I will talk about the Castelnuovo-Mumford regularity of projective variety. The Castelnuovo Mumford regularity is an invariant which measures the complexity of the minimal free resolution of the defining ideal of a projective variety. There are some upper bound in terms of other basic invariants of projective variety, especially the Eisenbud-Goto conjecture $\text{reg } V \leq \deg V - \text{codim } V + 1$ for a nondegenerate projective variety is still open. In my talk I will consider the Buchsbaum property of the projective variety, and by using the k -Buchsbaum property I will describe a bound of the regularity and some results and problems on a classification of projective varieties.