

SEMINARIO DI GEOMETRIA

26 Febbraio 2013, h.11.30-12.30

Politecnico di Torino,
Dipartimento di Scienze Matematiche,
AULA BUZANO

Sukmoon Huh

(Sungkyunkwan University)

A Torelli type problem for logarithmic bundles
over projective varieties.

For an arrangement D of smooth hypersurfaces on a nonsingular variety X , we can define a logarithmic sheaf as a sheaf of differential 1 forms with logarithmic poles along D .

This sheaf is locally free when D has simple normal crossings. When the logarithmic bundle is free, we cannot determine the divisor to be free. In particular, we lose many information about the free divisors when we consider their corresponding logarithmic bundles.

As an opposite extremal case, we can ask Torelli type question, i.e. can we recover the divisor from the logarithmic bundles? This question was answered in the case of projective spaces by Dolgachev-Kapranov and Valles. In this talk, we introduce the recent result on the same question over quadric hypersurfaces and multiprojective spaces. This is a joint work with E.Ballico and F.Malaspina.