## SEMINARIO DE GEOMETRÍA ALGEBRAICA

## Jueves 10 de enero de 2008, 14:00, Seminario 238

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Impartirá la conferencia

## The motivic zeta function and its smallest poles

Summary: In this talk, I introduce the topological and motivic zeta function and discuss the relation between them.

Denef and Loeser defined the motivic zeta function as a power series over the localized Grothendieck ring. By using motivic integration, they found a formula for it in terms of an embedded resolution. We will see that there exists an analogous formula over the Grothendieck ring itself. This formula specializes to the formula of Denef and Loeser. The class of jet spaces in the Grothendieck ring is divisible by certain powers of the class of the affine line. This has consequences for the motivic zeta function.