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Departamento de
Matemáticas
Universidad Zaragoza

Seminario Geometría y Topología

Conferencia

por

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Título:

“On zeta functions, weighted blow-ups, and the
Monodromy Conjecture for some surface
singularities”

Abstract:

The Denef-Loeser topological and motivic zeta functions are analytic invariants of holomorphic map germs $f: \mathbb{C}^n \rightarrow \mathbb{C}$, which are usually computed via embedded resolutions. They codify some information about the topology of the Milnor fiber of the zero locus. More concretely, the Monodromy Conjecture predicts that any pole of these zeta functions is related to an eigenvalue of the monodromy at some point of $f^{-1}(0)$.

In this talk, we introduce some recent techniques that we have developed for the study of these zeta functions for \mathbb{Q} -divisors over orbifold varieties: a change of variables formula from relative canonical divisors, as well as a closed formula using compositions of weighted blowing-ups. Finally, we discuss some potential applications of the previous techniques to study of the Monodromy Conjecture for some surface singularities.

This is a joint work with Edwin LEON-CARDENAL (UNAM), Jorge MARTIN-MORALES (CUD-IUMA) y Wim VEYS (KU Leuven).

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Lugar: Aula 10, Edificio de Matemáticas