

SEMINARIO

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Curvilinear Hilbert schemes and Algebraic Link Invariants of Plane Curve Singularities

Abstract: Given an isolated reduced plane curve singularity, we are naturally interested in studying its geometric and topological properties. A possible approach makes use of homological invariants of the algebraic link of the singularity, such as the Triply-graded link homology introduced by Khovanov and Rozansky.

However, the geometric understanding of such invariants is still very far, and punctual Hilbert schemes at the curve singularity come into play offering a fruitful geometric framework to give such link invariants an interpretation. In this direction we can find a theorem by Maulik and a conjecture by Oblomkov, Rasmussen and Shende that propose an interpretation at different depths of (polynomial and homological) link invariants in terms of the geometry of punctual Hilbert schemes and other classical invariants of the curve singularity.

In this talk we present a first step towards the above conjecture in the case of so-called curvilinear Hilbert schemes, which seem to play an interesting role in the theory, that we treat using tools coming from theory of p -adic integration.

El seminario tendrá lugar en Meet.

Para participar y recibir el enlace de la reunión hay registrarse en el siguiente formulario:

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10 de Febrero de 2023 (12:00)

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