

SEMINARIO IMAC DE Estructuras Algebraicas y Teoría de Códigos Correctores de Errores



**Conferencia a cargo de
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Multiplier ideals of complete ideals

Abstract: Multiplier ideals and jumping numbers are invariants that encode relevant information about the structure of the ideal to which they are associated. In general, jumping numbers and multiplier ideals of a fixed ideal are determined by the divisors appearing in the resolution of the ideal.

This talk will be divided in three parts. A first part will be devoted to introduce some basics about singularity theory and multiplier ideals. For the second part of the talk, we will give a formula to compute the multiplicity of jumping numbers of an m -primary ideal in a 2-dimensional local ring with rational singularities. This formula leads to a simple way to detect whether a given rational number is a jumping number. Another consequence of the formula is that it allows us to give an explicit rational expression for the Poincaré series of the multiplier ideals introduced by Galindo and Monserrat in 2010. This Poincaré series encodes in a unified way the jumping numbers and its corresponding multiplicities. This part is a joint work with Maria Alberich, Josep Alvarez Montaner and Víctor González Alonso. The last part will be devoted to introduce some results in the higher-dimensional case. This part is a joint work with Hans Baumers.

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Hora: 11:00 AM.

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