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SEMINARIO DE GEOMETRÍA ALGEBRAICA

Jueves 22 de mayo de 2008, 13:00, Seminario 238

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Impartirá la conferencia

An algorithm for checking whether the toric ideal of an affine monomial curve is a complete intersection

Summary: Let K be an arbitrary field and $\{d_1, \ldots, d_n\}$ a set of all-different positive integers. The aim of this work is to propose and evaluate an algorithm for checking whether or not the toric ideal of the affine monomial curve

$$\Gamma = \{(t^{d_1}, \ldots, t^{d_n}) \mid t \in K\} \subset \mathbb{A}_K^n$$

is a complete intersection. The algorithm is based on new results regarding the toric ideal of the curve, and it can be seen as a generalization of the classical result of Herzog for $n = 3$. Computational experiments show that the algorithm is able to solve large-size instances. This is a joint work with Ignacio García-Marco and Juan José Salazar-González.