Departamento de Álgebra, Geometría y Topología (AGT)
Facultad de Ciencias
Universidad de Valladolid

Seminario de Geometría Algebraica y Singularidades (GAS)

Conferencia para el Martes 15 de diciembre de 2009 a las 11:00h.

Edgar Martínez Moro. Universidad de Valladolid.

Combinatorial formulation of the Maximum-Likelihood decoding problem.

Resumen:

Recently the Maximum-likelihood decoding problem for a binary linear code over a binary-input discrete memoryless chanel has been reformulated as a linear programming problem. Gröbtschel and Truemper showed that a linear functional over the cycle polytope of a binary matroid could be solved in polynomial time for certain classes of matroids (or related codes). One such family is that consisting of codes for with the codeword polytope is identical to the Koetter-Vontobel fundamental polytope derived for the dual code. In other hand M. Borges, M.A. Borges and myself have described in terms of Groebner basis the graphic binary matroids and their minimal cycle basis (minimal codewords of the associated code) resulting another convex BBM polytope. In this talk we will review all these results and point out some conections from the combinatorial point of view.

Lugar: Departamento de Álgebra, Geometría y Topología.

Información sobre próximas conferencias está disponible en:
http://www.singacom.uva.es

Organizador: Santiago Encinas.