



istanbul matematiksel bilimler merkezi
istanbul center for mathematical sciences

IMBM Number Theory Meetings

THE ORDER BOUND FOR ALGEBRAIC GEOMETRY CODES

Peter Beelen

Technical University of Denmark

Abstract

The order bound is a general method to obtain a lower bound for the minimum distance of an evaluation error-correcting code. The minimum distance of such a code is strongly related to the number of zeroes a polynomial equation can have when working over a finite field. The order bound works particularly good in case the code is defined using Goppa's construction of codes from algebraic curves. In my talk I will outline the main ideas behind the order bound and make them more explicit in the case of one-point algebraic-geometry codes.

Date : Wednesday, March 9, 2016

Time: 13:00

Place: IMBM Seminar Room, Boğaziçi University South Campus