

Boğaziçi MATH COLLOQUIUM

Asymptotic bounds for codes

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Abstract: Error-correcting codes are a mathematical tool for detecting and correcting errors that occur in information transmission. The basic parameters of a code are its information rate and its relative minimum distance. These parameters describe the error-correcting capability of the code, and they satisfy some more or less obvious bounds.

In this talk I will discuss old and new results on such bounds. A basic tool will be algebraic curves over finite fields having many rational points. Following an idea of Goppa, such curves can be used for the construction of powerful codes.

Date : Wednesday, March 25, 2015

Time: 2pm

Place: TB 250, Boğaziçi University