



# FATİH UNIVERSITY

Department of Mathematics

Seminars on

## Codes, Cryptography and Combinatorics

Dear Colleagues,

You are cordially invited to attend the following seminar organized by the department of mathematics.

**Speaker** : PhD. St. Refia AKSOY

**Title** : Lifts of Self-dual Codes

**Abstract** : In this work, lifts of the binary self-dual codes to the ring family of  $R_k$  by using basic tools of linear algebra are described. By applying method to the extremal binary self-dual [14,7,4] code in the specific case of  $R_2$ , a family of self-dual codes over  $R_2$  of length 14 are constructed. As Gray images of these codes [56,28,10] binary self-dual codes are obtained. Ten extremal binary self-dual [58,29,10] codes with new weight enumerators are found as extensions of these codes. Magma package has been used to construct these codes.

**Date** : April 30, Thursday

**Time** : 13:00

**Room** : A-324

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**Next Speaker** : Assist. Prof. İ.Gökhan KELEBEK