



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 : Assoc. Prof. Bahattin YILDIZ

Title : Linear and Cyclic codes over a non-chain extension of \mathbb{Z}_4 -and the \mathbb{Z}_4 -images

Abstract : In this talk, I will mention some of the recent work I have done with different collaborators on the ring $\mathbb{Z}_4 + u\mathbb{Z}_4$ a non-chain extension of the ring \mathbb{Z}_4 . After mentioning some of the basic properties of the ring, defining the Lee weight and establishing the MacWilliams Identities, I will consider cyclic codes over this ring. It turns out that the Gray images of cyclic codes over $\mathbb{Z}_4 + u\mathbb{Z}_4$, which are all 2-Quasicyclic \mathbb{Z}_4 -codes, are a rich source of good \mathbb{Z}_4 -codes many of which are new additions to the database of known \mathbb{Z}_4 -codes.

Date : April 9, Thursday

Time : 13:00

Room : A-324