

Meeting: 1002, Pittsburgh, Pennsylvania, SS 2A, Special Session on Convexity and Combinatorics

1002-05-138 **Nuh Aydin*** (aydinn@kenyon.edu), Department of Mathematics, Kenyon College, Gambier, OH 43022. *Affine Cyclic Codes*. Preliminary report.

The class of Cyclic codes enjoys a prominent place in classical Algebraic Coding Theory. There are several generalizations of cyclic codes including quasi-cyclic and quasi-twisted codes. Many of the best known codes are of these types. In this work, we introduce another generalization of cyclic codes, called affine cyclic codes. We investigate their algebraic properties and also report the results of a computer search for new codes of this type. (Received September 12, 2004)