

1074-94-275

Kathryn A Haymaker* (s-khaymak1@math.unl.edu). *Designing high-rate codes for flash memories with increased rewrites*. Preliminary report.

Binary write once memory (WOM) codes were introduced in the 1980s with the goal of storing information in cells that can be changed from a 0 to a 1, but whose cell levels can never decrease. The revival of interest in these codes is due to a similar asymmetric-write property that exists in models of flash memory storage. Flash cells may be reset to zero, but at a cost, thus prompting the need to maximize the number of writes before a reset. In this talk we will present a variation of the position modulation coding scheme that uses existing WOMs, and discuss the rates and rewrite capabilities of these codes. (Received August 23, 2011)