1106-94-2657 **Christine A. Kelley*** (ckelley2@math.unl.edu) and **Kathryn Haymaker**. *Designing error correcting codes for flash memories.*

Error correction for the flash memory channel is a topic of current interest due to the prevalence of flash memories in many current storage devices. We consider the standard setting of two bits per cell (MLC) and three bits per cell (TLC) flash cells, where the different bits stored in a cell are prone to unequal error rates. This talk focuses on the design of low-density parity-check (LDPC) codes for this application. We show how the degree distribution of the check nodes to the different variable node types affects performance, and present a construction of LDPC codes that have optimized check node degree distributions in this respect. Time permitting, we will present work on the design of non-binary LDPC codes for such applications. (Received September 16, 2014)