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**Christine A. Kelley\*** ([ckelley2@math.unl.edu](mailto:ckelley2@math.unl.edu)), Department of Mathematics, 203 Avery Hall, Lincoln, NE 68588. *Algebraic LDPC codes based on non-commuting permutation matrices.*

Over the last decade, much research has focused on the design of graph-based codes using lifts of specially chosen base graphs. In this talk we will look at using algebraic lifts of graphs for codes designed from non-commuting permutation matrices. We will discuss some new results on the properties of these codes. (Received December 13, 2011)