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**Anna Haensch\*** (haenscha@duq.edu), Department of Mathematics and Computer Sci., 600 Forbes Ave., Duquesne University, Pittsburgh, PA 15282. *Kneser-Hecke operators for quaternary codes*. Preliminary report.

Codes can be viewed as a lattices via a classical construction, and consequently, many of the concepts of lattice theory can be adapted to the setting of codes. One particularly interesting association exists between weight-enumerators for codes and theta-series for lattices, which brings with it some of the tools of modular forms. There is a well defined analogue of Heck-operators for theta series in the setting of codes over finite fields, namely, the Kneser-Hecke-operator. In this talk we will discuss a similar construction for codes over finite chain rings, in particular, exploring the graph associated to the Kneser-Hecke-operator. (Received January 27, 2015)