

Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-15-201 **Frank J Hall*** (fhall@mathstat.gsu.edu), Department of Mathematics and Statistics, Georgia State University, 30 Pryor St, Atlanta, GA 30303. *Idempotents and Generalized Inverses of Nonnegative Sign Pattern Matrices.*

A nonnegative sign pattern matrix is a matrix whose entries are from the set $\{+, 0\}$. A nonnegative sign pattern matrix can also be viewed as a Boolean matrix, by replacing each $+$ entry with 1. In this talk, the idempotent nonnegative patterns are identified, and the nonnegative sign patterns that allow various types of nonnegative (or positive) generalized inverses are characterized. (Received August 26, 2004)