



Mathematics Colloquium



Splittings of Matrices & Nonnegative Moore-Penrose Inverses

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Thursday, December 3rd, 2015

4:10 p.m.

Neill 5W

Let A be a real square matrix whose off-diagonal entries are nonpositive. Such a matrix could be written as $A = sI - B$, where B is an entrywise nonnegative matrix and s is a real number. It is well known that if $s > r(B)$, where $r(\cdot)$ denotes the spectral radius, then A is nonsingular and that the inverse of A is entrywise nonnegative. In this talk, I would like to present an extension of this result, where the usual inverse is replaced by the Moore-Penrose inverse. Other related results will also be surveyed.

Refreshments served at 3:30 p.m.

Hacker Reading Lounge - Neill 216

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