Department of Mathematical Sciences

Fall 2015

Colloquium Series

Tuesday, Nov. 24, 2015 at 3:30pm in Bell Hall 143

Note the unusual colloquium day and time

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Inverse positivity of interval matrices

Let $A, B \in \mathbb{R}^{n\times n}$ with $A \leq B$, coordinate wise. An interesting result for the (coordinate wise) "interval" formed by A and B is that if the "end-matrices" A and B are invertible and that the r inverses are nonnegative, then any matrix in the interval is invertible and its inverse is nonnegative. In this talk, the main objective is to present an extension of this result to the case of the nonnegativity of the Moore-Penrose generalized inverse. I intend to present a brief exposition of the Moore-Penrose inverse in the course of the talk.

For further information, please contact Dr. Piotr Wojciechowski, piotrw@utep.edu