MATHEMATICS SEMINAR

NORMAL MATRICES AND DISTANCE

In many areas of pure and applied mathematics, the spectrum of a matrix (or operator) plays an important role. For instance, when dealing with linear systems of differential equations, the spectrum of a matrix allows one to describe all of their solutions.

In Linear Algebra, it is well-known that the spectrum of a *normal* matrix can be used to recover the norm of its resolvent. One may ask: *Can the spectrum of any matrix recover the norm of its resolvent?*

In this talk, I will answer this question and establish a number of consequences related to norm behavior, pseudospectra, and unitary equivalence.

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Thursday, November 17th
10:30 am – 11:30 am
Marieb Hall 214

