Colloquium

Jan Lang

The Ohio State University
Columbus, Ohio

Friday, September 3, 2010 at 3 pm in Bell Hall 143

Strict s-numbers and integral operators

When T and S are different compact maps, which map a Banach space X into a Banach space Y it is natural to ask a question: Which one is more "compact"? To answer this question a quantity for measuring "quality" of compactness must be introduced. Compactness of a map on Banach spaces can be measured by using "widths" or s-numbers. Widths were introduced by Kolmogorov and s-numbers (which are more general) by Pietsch. There are plenty of different s-numbers and widths on Banach spaces (i.e. there are plenty of different ways how to measure compactness). Note that these different definitions coincide when spaces X and Y are Hilbert spaces.

The main purpose of this talk is to look at a class of s-numbers, called strict s-numbers and study behavior of this class for integral operators. We would like to also show connections of strict s-numbers with eigenvalues of operators on Banach spaces.

For further information, please contact Dr. Emil Schwab, eschwab@utep.edu
Refreshments will be served in front of the colloquium room,
15 minutes before the start of the colloquium.