

CALIFORNIA STATE UNIVERSITY, LONG BEACH

THE MATHEMATICS COLLOQUIUM

presents

Dr. Peter Petersen

University of California, Los Angeles

speaking on

Alternative Proofs in Linear Algebra

Friday, April 15, 2005

12:00PM-1:00PM

LA5-267

Abstract: For the past couple of summers I have been teaching linear algebra to incoming graduate students. The goal of the course was to ensure that they really have learned what they should have learned about linear algebra before starting graduate school. To make the course a little more fun for me, and hopefully them as well, I decided to make an attempt at redoing how linear algebra was taught. Some of the new proofs that I developed might not be new, but they are certainly different from what is usually found in text books. Specifically I will try to discuss: Dimension, The Subspace Theorem, calculation of eigenvalues/vectors, and the Cyclic Subspace Decomposition.