The Math Colloquium
Department of Mathematics
San José State University

Estelle Basor

American Institute of Mathematics

Patience sorting, permutations, and random matrices

May 6, 2009, MH320

Abstract: What do a very simple solitaire card game, a random permutation, and a random Hermitian matrix have in common? This talk will describe some recent developments in random matrix theory that give clues to the answer of this question. For example, the length of the longest increasing subsequence of a random permutation can be described by new probability laws that have been discovered in random matrix theory. This is also connected to the number of piles of cards one obtains using a method called patience sorting. This talk will explain these concepts and present a survey of some of related results.

Background: Students should have basic knowledge of linear algebra.

About the speaker: Estelle Basor received her PhD from UCSC and recently retired from Cal Poly, San Luis Obispo. She is currently the Deputy Director of the American Institute of Mathematics in Palo Alto. Her research is in analysis and random matrix theory.

Snacks in MH331B at 2:30 pm
Talk starts at 3 pm

For more information, see our full schedule at:

http://www.math.sjsu.edu/∼hsu/colloq/