



The Math Colloquium
Department of Mathematics
San José State University



John Shareshian

Washington University in St. Louis/MSRI

Eulerian and Mahonian permutation statistics

APRIL 28, 2010, MH320

Abstract: I will discuss the descent and excedance statistics (examples of “Eulerian statistics”), along with the inversion statistic and the major index (examples of “Mahonian statistics”). All of these are functions that assign nonnegative integer values to permutations. The distributions of these statistics (that is, the values they take and the frequencies of these values) have been the subject of much study, and I will describe classical results in this area. Then I will describe joint work with Michelle Wachs in which we find the joint distribution of the major index and the excedance statistic.

Background: Familiarity with permutations. It will also be helpful, but not necessary, to have some experience with generating functions.

About the speaker: John Shareshian received his Ph.D. from Rutgers University in 1996. He is a professor of mathematics at Washington University in St. Louis and is currently a member at the Mathematical Sciences Research Institute in Berkeley. His research interests include combinatorics and group 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/>