

1039-47-49

Estelle L Basor* (ebasor@calpoly.edu), Mathematics Department, Cal Poly, San Luis Obispo, CA 93407. "*Determinant computations for some classes of Toeplitz-Hankel matrices*". Preliminary report.

This talk will describe how to compute the asymptotics of the determinants for finite sections of certain perturbations of Toeplitz operators. The classical Szego-Widom formula is an example of this kind of asymptotic where the finite sections are simply finite Toeplitz matrices. The talk will describe some of the asymptotics of other operators, in particular for a sum of finite Toeplitz and Hankel matrices generated by different symbols. The asymptotics are important in random matrix theory since it corresponds to computing the density of certain random variables called linear statistics. In addition, for some new classes of operators, an exact formula will be obtained for the determinants. (Received February 28, 2008)