## 1061-60-172 Estelle L Basor\* (ebasor@aimath.org), 960 Portage Ave., Palo Alto, CA 94306. The largest eigenvalue distribution via orthogonal polynomials.

In random matrix theory, for ensembles of Hermitian matrices, an object of interest is the distribution of the largest eigenvalue. For many classical ensembles, the distribution is related to a Painlevé equation. This talk will describe a simple method to find the Painlevé equation using basic complex analysis and recursion identities for orthorgonal polynomials. (Received April 12, 2010)