

Meeting: 1000, Albuquerque, New Mexico, SS 1A, Special Session on Random Matrix Theory and Growth Processes

1000-60-10 **Alexander Soshnikov*** (soshniko@math.ucdavis.edu), UC Davis, One Shields Ave,
Department of Mathematics, Davis, CA 95616. *Poisson statistics for the largest eigenvalues of
Wigner and sample covariance random matrices with heavy tails of matrix entries distributions.*

We study ensembles of Wigner and sample covariance random matrices for which the matrix entries have heavy tails of distributions (e.g. Cauchy). Our results state that in the limit when the dimension of a matrix goes to infinity the statistical properties of the largest eigenvalues are given by inhomogeneous Poisson random point process. (Received May 12, 2004)