

abstract

Joint Princeton Mathematical Physics Seminar
Topic:

Speaker:

Affiliation:

Date:

Time/Room:

We consider asymptotics of the correlation functions of characteristic polynomials of the hermitian Wigner matrices $H_n = n^{-1/2} W_n$ and the hermitian sample covariance matrices $X_n = n^{-1} A_{m,n}^* A_{m,n}$. We use the integration over the Grassmann variables to obtain a convenient integral representation. Then we show that the asymptotics of the correlation functions of any even order coincide with that for the GUE up to a factor, depending only on the fourth moment of the common probability law of the matrix entries, i.e. that the higher moments do not contribute to the above asymptotics.