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Title : Linear eigenvalue statistics for deformed Wigner model

Abstract : In this talk, we consider a Wigner matrix  $W_N$  deformed by a deterministic diagonal matrix  $A_N$  :  $X_N = W_N + A_N$ . The behavior of the empirical spectral measure is known and we are interested in the fluctuations of linear eigenvalue statistics  $\text{Tr} f(X_N)$ , where  $f$  is a test function. We present recent results by Ji and Lee for analytic  $f$  and a joint work with Maxime Février (Univ. Paris-Sud) for less regular functions.