

1046-41-971

Yang Chen* (y.chen@imperial.ac.uk), Imperial College London, 180 Queen's Gate, London, SW7 2BZ, England. *Some linear statistics of random Hermitean matrices that are Painlevé functions.*

The sum of functions of random variables known as linear statistics is a stochastic variable of frequent occurrences in random matrix theory. In this talk, I will provide examples of families of linear statistics that are expressed in terms of Painlevé functions. These are derived via the basic theory of orthogonal polynomials. (Received September 13, 2008)