

1145-47-2709

Cong Zhou* (zhouco@iu.edu), Department of Mathematics, Indiana University, Bloomington, IN 47408. *Limit laws for R-diagonals.*

In this talk we determine the distribution behavior of the sum of *-free identically distributed R-diagonal random variables. The theory is shown to parallel the free probability theory of free random variables, though the limit laws of the tracial case and non-tracial case are entirely different. We show the convergence in moments of the sum of *-free, R-diagonal identically distributed random variable is R-diagonal and free additive convolution-infinately divisible, which is previously known parametrizable by a pair of compactly supported Borel probability measures on the positive real axis. In particular, we determine the domains of attraction of those parameters in the free theory. (Received September 25, 2018)