

1025-46-261

Malgorzata E Konwerska* (mkonwers@math.uiuc.edu). *Non Commutative Versions of the Law of the Iterated Logarithm.* Preliminary report.

We study the limit behaviour of the sequences $\left(\frac{1}{a_n} \sum_{i=1}^n x_i\right)_{n \geq 0}$, where $(a_n)_{n \geq 0}$ is an increasing sequence of positive numbers diverging to $+\infty$ and $(x_n)_{n \geq 0}$ are self-adjoint random variables on a tracial probability space (\mathbb{N}, τ) - we consider them first being free, then being in the usual sense independent. Later we apply the developed methods to prove the Law of the Iterated Logarithm for a non commutative Brownian Motion and in the case of more general random variables $(x_n)_{n \geq 0}$. (Received January 23, 2007)