

P	Q	not P	$P \Rightarrow Q$	$P \text{ and } Q$	$P \text{ or } Q$
T	T	F	T	T	T
T	F	F	F	F	T
F	T	T	T	F	T
F	F	T	T	F	F

depending on n . Therefore

Moreover, by Lemma 6 the density of the measure μ is bounded (by a number

$$n(\|L\| \leq C \log(1/\varepsilon)) \leq \varepsilon \quad (8)$$

the space of $n \times n$ matrices, which we will identify with \mathbb{R}^{n^2}). By Lemma 2,

Let $\mu = \mu_{\text{tot}}$ denote the law of the matrix L (so μ is a Borel measure on

positive number depending only on n and q . The value may change from line

$$\mathbb{P}(\sup_{1 \leq i \leq n} |L_i| \leq \varepsilon_{i-1}) \geq C \varepsilon_{i-1} \quad (1)$$

It is therefore enough to show that for every ε there exists C' such that

$$\mathbb{P}(\sup_{1 \leq i \leq n} |L_i| \leq \varepsilon_{i-1}) \geq C' \varepsilon_{i-1} \quad (2)$$

where for $n \leq 1$ and $\varepsilon \in (0, 1)$.

Corollary 10 For any $q \in (0, 1)$ there exists C' depending only on q such

Remark that the inequality (3) gives the following corollary:

even in Theorem 3. Although we cannot prove the same dependence in the

The dependence on ε in the Gaussian case, described in Theorem 1 is better

3.2 Dependence on ε

I think you have a good strategy

Let's check your proof carefully, because of no such convergence

Since $q < 1/3$, the law has two main properties: (3)