

Theorem 6.2 (Strong AEP) There exists $\eta > 0$ such that $\eta \rightarrow 0$ as $\delta \rightarrow 0$, and the following hold:

1) If $\mathbf{x} \in T_{[X]}^n \delta$, then

$$2^{-n(H(X)+\eta)} \leq p(\mathbf{x}) \leq 2^{-n(H(X)-\eta)}.$$