

**Proposition 6.5** For any  $\mathbf{x} \in \mathcal{X}^n$ , if  $\mathbf{x} \in T_{[X]\delta}^n$ , then  $\mathbf{x} \in W_{[X]\eta}^n$ , where  $\eta \rightarrow 0$  as  $\delta \rightarrow 0$ .

## Proof Idea

- By strong AEP and the definition of weak typicality.