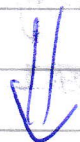


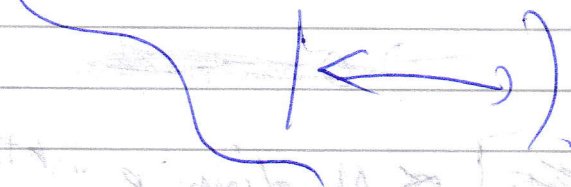
$$\|g(t_{m_k}) - g(t^*)\| \leq \omega_\varepsilon(\sqrt{n} \operatorname{diam}(B_{m_j}))$$

↓
since \sqrt{n} is the length of the diagonal!



$$\mathbb{P}(A_{m_j} \cap E_\varepsilon) \leq$$

$$\mathbb{P}\left(\|g(t_{m_k}) - g(t^*)\| \geq \varepsilon, g(t_{m_k}) \in 2B + \omega_\varepsilon(\sqrt{n} \operatorname{diam}(B_{m_j})) \text{ ball}\right)$$



this prob can be sent to 0 uniformly.

$$\text{since } \mu(2B + \varepsilon \text{ ball}) \rightarrow 0$$

$$\text{and } \omega_\varepsilon(\sqrt{n} \operatorname{diam}(B_{m_j})) \leq \delta_m$$

$$\omega_\varepsilon(\sqrt{n} \delta_m^{2/n}) \rightarrow 0$$