

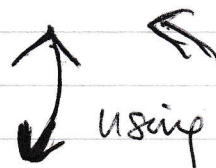
maximal array
vector of residuals

$$\mathbb{E}[h(\tilde{G}_N) | R]$$

So have

$$\sup_{h \in B} |\mathbb{E}[h(\tilde{G}_N) | R] - \mathbb{E}[h(\tilde{G}) | R]|$$

$$\xrightarrow{\text{a.s.}} 0$$



using standard a.s. defⁿ.

Then ~~there is~~, for a.s. a.a. $\omega \in \Omega$.

$$\sup_{h \in B} |\mathbb{E}[h(\tilde{G}_N) | R(\omega)] - \mathbb{E}[h(\tilde{G}) | R(\omega)]|$$

$$\rightarrow 0$$

i.e. $\sup_{h \in B} |\mu_{R(\omega)}(h(\tilde{G}_N)) - \mu_{R(\omega)}(h(\tilde{G}))|$

where $\forall y \in \text{Im}(R)$
 $\mu_y(A)$ is the

~~measure $\mu_y(A) = \int \mathbb{1}_A p(x|y) dx$~~

$\mu_{R(\omega)}$ is a measure so it follows that

$$\tilde{G}_N \xrightarrow{\mu_{R(\omega)}} \tilde{G} \text{ i.e. } \forall f \in C_b(\mathbb{D}),$$

$$\mu_{R(\omega)}(f(\tilde{G}_N)) \xrightarrow{\text{as } N \rightarrow \infty} \mu_{R(\omega)}(f(\tilde{G}))$$