

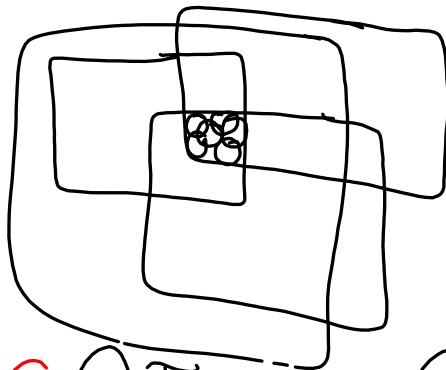
$\bigcap \tau_\alpha$ a topology?

$\emptyset \in \bigcap \tau_\alpha \quad \emptyset \in \tau_\alpha \quad \forall \alpha$
 $X \in \bigcap \tau_\alpha \quad X \in \tau_\alpha \quad \forall \alpha$

To show

$\bigcup_{\beta} U_{\beta} \in \bigcap_{\alpha} \tau_{\alpha}$ for $U_{\beta} \in \bigcap_{\alpha} \tau_{\alpha}$

$U_{\beta} \in \bigcap_{\alpha} \tau_{\alpha} \quad \forall \beta$



$\bigcap_{i=1}^{\infty} U_i \in \bigcap_{\alpha} \tau_{\alpha}, U_i \in \bigcap_{\alpha} \tau_{\alpha} ?$

↑ elements ↑ sets