

4.5.1

$O \in \mathcal{O}M$   $\exists$   $\tau < \beta$  s.t.

$O' \in \mathcal{O} \cap M$  s.t.  $O = O' \cap M$  s.t.  $\tau < \beta$ .

$\therefore \tau$   $\mathcal{B}$  is  $\mathcal{O}$  of base  $\tau$  s.t.  $O' = \bigcup_{\lambda \in \Lambda} W_\lambda$  ( $W_\lambda \in \mathcal{B}$ ) s.t.  $\tau < \beta$ .

$$O = \left( \bigcup_{\lambda \in \Lambda} W_\lambda \right) \cap M$$

$$= \bigcup_{\lambda \in \Lambda} (W_\lambda \cap M)$$

$\psi$  s.t.:

$\mathcal{B}_M = \{O \cap M \mid O \in \mathcal{B}\}$  is base s.t.