

What is the geometric  
meaning of the cohomology  
 $H^*(\tau, \rho)$  ?

Def.  $f: M \rightarrow N$  proper Thom map  
 $f$  is a  $\tau$ -map  
 $\Leftrightarrow f^{-1}(y) \in \tau \quad (\forall y \in N)$

Def.  $C = \sum \eta_z \mathcal{F} \in C^k(\tau, \rho)$

$C(f) := \{ \underline{y} \in N \mid f^{-1}(y) \in \mathcal{F} \text{ with } \eta_z \neq 0 \}$

Lemma (1)  $C$  : cocycle ( $d_k(C) = 0$ )  
 $\Rightarrow C(f)$  : cycle ( $\dim = \dim N - k$ )  
(2)  $C \sim C'$  cohomologous  
 $\Rightarrow C(f) \sim C(f')$  homologous