

s.t.  $\bigcup_{i=1}^n U_{p_i} \supset K \cap V$ ,  $\overline{U_{p_i}}$  compact. (We may add this condition.)

$\Rightarrow \exists$  a partition of unity  $\phi_i$  s.t.  
 $\text{supp } \phi_i \subset U_{p_i}$

and  $\sum \phi_i = 1$ .

$$\Rightarrow \int_V d\varphi$$

$$= \int_V d \sum \phi_i \varphi = \sum_i \int_V d\phi_i \varphi = 0$$

by the claim,

since  $\phi_i \varphi \in A_c^{\Delta K-1}(U)$ .  $\Rightarrow$

For any  $p \in V$ , we can find a coordinate system  $z = (z_1, z_2, \dots, z_n)$  and a polycylinder  $\Delta$  around  $p$  s.t. the projection map  $\pi: (z_1, z_2, \dots, z_n) \mapsto (z_1, \dots, z_k)$  expresses  $V \cap \Delta$  as a branched cover of  $\Delta' = \pi(\Delta)$ , branched over an analytic hypersurface  $D \subset \Delta'$ .

$\square$  By P14, the assertion 2.  $\Rightarrow$

Let  $T_\epsilon$  be the  $\epsilon$ -nbd of  $D$  in  $\Delta'$  and

$$V_\epsilon = (V \cap \Delta) - \pi^{-1}(T_\epsilon).$$