

$\cap \pi^{-1}(V - (\{r'=0\} \cup \{D(k)=0\})) \longrightarrow V - (\{r'=0\} \cup \{D(k)=0\})$
 is a finite sheeted covering.

$\Rightarrow \pi: \{f=g=0\} \longrightarrow V$ is $(\deg k)(\deg r)$ sheeted branched covering.

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$$\begin{array}{rcl}
 V \subset \mathbb{C}^n & \text{Assume that } \pi^l(V) \text{ is irreducible at } 0 & \\
 \pi \downarrow & \text{for all } l. & \\
 \pi(V) \subset \mathbb{C}^{n-1} & V \not\subset \{z_1 = \dots = z_{n-1} = 0\} & \\
 \pi \downarrow & \pi(V) \not\subset \{z_1 = \dots = z_{n-2} = 0\} & \\
 \pi^2(V) \subset \mathbb{C}^{n-2} & & \\
 \pi^{k-1}(V) \subset \mathbb{C}^{n-k+1} & & \\
 \pi \downarrow & & \\
 \pi^k(V) \subset \mathbb{C}^{n-k} & &
 \end{array}$$

Suppose $\pi^k(V)$ contains an open mbd of 0.

\Rightarrow By P13. assertion 3, $\pi^{k-1}(V)$ is analytic hypersurface. $\Rightarrow \pi: \pi^{k-1}(V) \longrightarrow \pi^k(V)$ is finite sheeted branched covering.

\Rightarrow For generic points in $\pi^k(V)$, \exists open set $U \subset \pi^k(V)$ s.t. $\{(z_1, \dots, z_{n-k}, h(z_1, \dots, z_{n-k})) \mid (z_1, \dots, z_{n-k}) \in U\}$ is an open subset of $\pi^{k-1}(V)$. More precisely, \exists finite # of h 's.

\Rightarrow By the assertion 3, since $\pi^{k+1}(V)$ is an analytic subvariety of \mathbb{C}^{n-k+2} , $\pi^{k+1}(V) = \{f_1 = \dots = f_e = 0\}$.