

Let this analytic function on U be k .

$$\Rightarrow \bigvee_{\text{For } (k=0) \cap U} \bigvee (\frac{a_{11}}{a_{00}}, \dots) ,$$

$a_{00} X_0^2 + \dots + a_{12} X_1 X_2 = 0$ is tangent to C in W .

\Rightarrow Since C is compact, \exists a finite number of holomorphic function in $\frac{a_{11}}{a_{00}}, \dots, \frac{a_{12}}{a_{00}}$.

Thus we showed that, in $\mathbb{P}^5 (= \text{the complete linear system of conics in } \mathbb{P}^2) - \text{point } (= [a_{00}, a_{11}, \dots])$, $(a_{00} X_0^2 + \dots + a_{12} X_1 X_2 = 0) = C$, $V_C = [a_{00}, \dots, a_{12}]$ is analytic subvariety. $V_C = [a_{00}, \dots, a_{12}]$ is analytic subvariety in $\mathbb{P}^5 - [a_{00}, \dots, a_{12}]$.

\Rightarrow By Levi Extension Theorem (II), since $\overline{V_C - [a_{00}, \dots]} = V_C$, V_C is analytic subvariety in \mathbb{P}^5 .

By the argument above, V_C is hypersurface in \mathbb{P}^5 .

\Rightarrow " In other words, for each $w \in C$, we have

open sets $W_w, U_w, W_w \ni w, U_w \ni (\frac{a'_{11}}{a'_{00}}, \dots, \frac{a'_{12}}{a'_{00}})$
holomorphic functions h_w, k_w .

Since C is compact, we have a finite number of holomorphic functions k_w 's = k_i 's defined on $\bigcap_{i=1}^n U_{w_i} = \tilde{U}$

Thus $\tilde{U} \cap (\tilde{k} = \prod_{i=1}^n k_i = 0)$ is the set of $(\frac{a_{11}}{a_{00}}, \dots, \frac{a_{12}}{a_{00}})$ containing $(\frac{a'_{11}}{a'_{00}}, \dots, \frac{a'_{12}}{a'_{00}})$ s. t, for such all $(\frac{a_{11}}{a_{00}}, \dots, \frac{a_{12}}{a_{00}})$, $a_{00} X_0^2 + \dots + a_{12} X_1 X_2 = 0$ is tangent to C . "

If we could show that for a generic choice of