conic containg 10 points of P_0.

② $\#(C_0 \cap P_0) = 4$

$\Rightarrow \# P_0' = 8$.

Suppose $|\mathcal{J}_{P_0'}(3)|$ has a fixed conic. $\Rightarrow \dim|\mathcal{J}_{P_0'}(3)| = \dim|\mathcal{J}_{P_0''}(1)| = \dim|\mathcal{J}_{P_0}(4)| \geq 3$ Impossible, since $H^0(\mathbb{P}^2, \mathcal{O}(H)) = 3$

Suppose $|\mathcal{J}_{P_0'}(3)|$ has a fixed line l_1 which contains 5 points of P_0'. Suppose $\#(l_1 \cap P_0') = 5$. Let $P_0'' = P_0' - l_1 \cap P_0'$.

$\Rightarrow$

$3 \leq \dim|\mathcal{J}_{P_0}(4)| = \dim|\mathcal{J}_{P_0'}(3)| = \dim|\mathcal{J}_{P_0''}(2)|$

(i) Case 2,

$\dim|\mathcal{J}_{P_0''}(2)| = 5 - \overset{= \# P_0''}{d} = 2 \Rightarrow$ Contradiction

(ii) Case 1

$|\mathcal{J}_{P_0''}(2)|$ has a fixed line.

$\Rightarrow \dim|\mathcal{J}_{P_0''}(2)| = \dim|\mathcal{J}_{P_0'''}(1)| \leq 2$

Since $\dim H^0(\mathbb{P}^2, \mathcal{O}(H)) = 3$, and $\dim \mathcal{J}_{P_0'''}(1) \leq \dim H^0(\mathbb{P}^2, \mathcal{O}(H)) - 1$, $\Rightarrow$ contradiction. $\Rightarrow \#(l_1 \cap P_0') \geq 6$

$\Rightarrow$ Again $l_1 + l_0$ is a conic containg 10 points.

③ $\#(C_0 \cap P_0) \leq 3$

$\Rightarrow \# P_0' = 9, 10, 11$ Let Λ_0 be a subset of P_0' s.t $\#\Lambda_0 = 8$. $\Rightarrow$ Λ_0 can not impose independent conditions on $|\mathcal{O}_{\mathbb{P}^2}(3)|$, for, if so, then by the application on P 714.

(i) Case 2 $\Rightarrow \dim|\mathcal{J}_{\Lambda_0}(3)| = \frac{3(3+3)}{2} - 8 + \omega \Rightarrow$