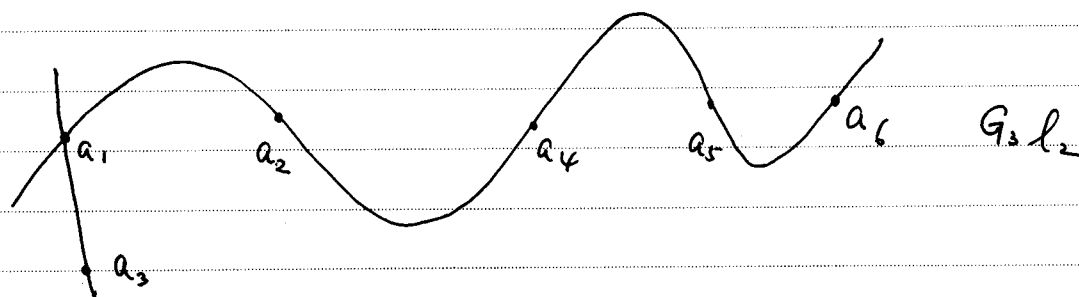


Up to automorphism of \mathbb{P}^2 , ψ is given by

$$\mathbb{P}^2 \longrightarrow \mathbb{P}^2$$

$$x \longmapsto [G_2 G_3 l_1, G_1 G_3 l_2, G_1 G_2 l_3]$$

Let $l_1 = \overline{a_1 a_2}$, $l_2 = \overline{a_1 a_3}$, $l_3 = \overline{a_2 a_3}$.



For a point $[1, a, b] \in \mathbb{P}^2$,

$$\{G_3 l_2 - a G_2 l_1 = 0\} = A, \quad \{G_3 l_3 - b G_1 l_1 = 0\} = B.$$

$$\Rightarrow \psi^{-1}[1, a, b] = A \cap B.$$

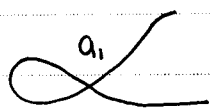
Note that $A \cap B \ni a_1, a_2, a_3, a_4, a_5, a_6$.

At a_1 ,

$$\frac{\partial G_3 l_2}{\partial x_i} = 0 \quad \text{and} \quad \frac{\partial G_2 l_1}{\partial x_i} = 0 \quad \text{for generic } a$$

$\Rightarrow A$ has multiplicity 2 at a_1 , since $\frac{\partial G_3 l_2}{\partial x_i \partial x_j} \neq 0$ for some i, j .

Note: G_3 can not be like this



since $\exists G_2$, so that $\#(G_2 \cdot G_3) > 4$.