

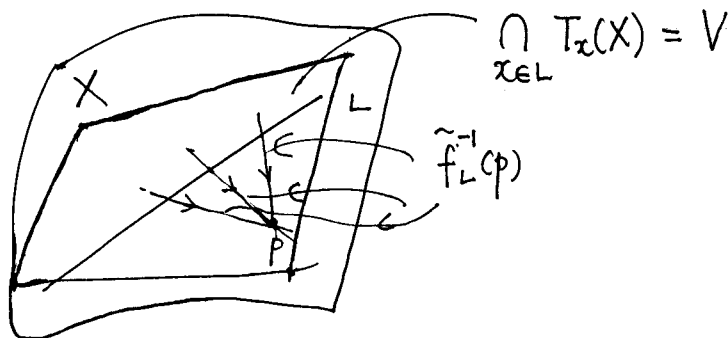
Thus $\tilde{f}_L: \tilde{X}_L \rightarrow \mathbb{P}^3$ is again the blow-up of the curve E_L .

Since $\tilde{f}_L^{-1}(E_L) = \tilde{f}_L^{-1}(p) \cup \bigcup_{L' \in B_L} L' - L$, \tilde{f}_L is one-to-one away from $\tilde{f}_L^{-1}(E_L)$.

□

(Recalling that a special line $L \subset X$ is to be counted among the lines meeting L , we may think of the line $\tilde{f}_L^{-1}(p)$ of points corresponding to normal vectors to $L \subset X$ in $\bigcap_{x \in L} T_x(X)$ as the "proper transform of L " itself in the blow-up \tilde{X}_L of X).

$\tilde{f}_L^{-1}(p) = \{ [* , * , p] \mid \text{All normal vectors to } L \text{ passing } p, \text{ and we may say that all lines in } \bigcap_{x \in L} T_x(X) \text{ passing } p \}$ is the line spanned by two points $[1, 0, p]$ and $[0, 1, p]$, since $\{ (\alpha, 0, \alpha p) + (0, \beta, \beta p) \mid \alpha + \beta \neq 0 \} = \tilde{f}_L^{-1}(p)$.



□