

We have seen that $\tau \sim 4\sigma_{3,2,1}$,
where

$\sigma_{3,2,1} = \{ \Lambda_2 \subset \mathbb{P}^5 : \Lambda \ni p, \dim(\Lambda \cap V_2) \geq 1, \Lambda \subset V_4 \}$
for any point, 2-plane, and hyperplane $p \in V_2 \subset V_4$.

$$\begin{aligned} \Gamma \quad \sigma_{3,2,1} &= \{ \Lambda_2 \subset \mathbb{C}^6 : \dim(\Lambda \cap V_{6-3+2-1}) \geq 2 \} \\ \sigma_{3,2,1}^{\text{def}} &= \{ \Lambda_2 \subset \mathbb{C}^6 : \dim(\Lambda \cap V_1) \geq 1, \dim(\Lambda \cap V_3) \geq 2, \\ &\quad \dim(\Lambda \cap V_5) \geq 3 \} \end{aligned}$$

$$\Rightarrow \sigma_{3,2,1} = \{ \Lambda_2 \subset \mathbb{P}^5 : p \in \Lambda, \dim(\Lambda \cap V_2) \geq 1, \Lambda \subset V_4 \}$$

$$G \subset \mathbb{P}^5 = \mathbb{P}^{4+1} \quad \text{see } P735 \sim P741.$$

$\Sigma_{2,4}$ is the cycle (in $G(3,6)$) of 2-planes on $G \subset \mathbb{P}^5$. \Rightarrow By the result on P741, $\Sigma_{2,4} \sim 2^3 \sigma_{3,2,1}$.
 \Rightarrow By the proposition on P735, G has two irreducible 3-dimensional families. \Rightarrow By the remark on P741, τ is one of two irreducible families on G , and
 $\tau \sim \frac{1}{2} \Sigma_{2,4} \sim 4 \sigma_{3,2,1}$.

\square

To compute $\#(\tau \cdot W_F) = 4 \cdot \#(\sigma_{3,2,1} \cdot W_F)$

let p , V_2 and V_4 be generic, so that $p \notin F$, V_2 intersects F in a smooth conic curve C , and V_4 intersects F in a smooth quadric threefold Q .

Γ Choose a generic V_4 so that $V_4 \cap F$ is a smooth