Schubert cells on $Gr(\mathbb{P}^1, \mathbb{P}^3)$

L	dim $L \cap \langle e_3 \rangle$	dim $L \cap \langle e_2, e_3 \rangle$	dim $L \cap \langle e_1, e_2, e_3 \rangle$	VECTOR	(λ_1, λ_2)
$\begin{bmatrix} 1 & & * & * \\ & 1 & * & * \end{bmatrix}$	≥ 0	≥ 0	≥ 1	$(0,0,0)$	$(0,0)$
$\begin{bmatrix} 1 & * & & * \\ & & 1 & * \end{bmatrix}$	≥ 0	$\geq \underline{1}$	≥ 1	$(0,1,0)$ $L \cap F_2 \geq 1$	$(1,0)$
$\begin{bmatrix} 1 & * & * & \\ & & & 1 \end{bmatrix}$	$\geq \underline{1}$	≥ 1	≥ 1	$(1,1,0)$ $L \cap F_1 \geq 1$	$(2,0)$
$\begin{bmatrix} 0 & 1 & & * \\ & & 1 & * \end{bmatrix}$	≥ 0	$\geq \underline{1}$	$\geq \underline{2}$	$(0,1,1)$ $L \cap F_3 \geq 2$ $L \cap F_2 \geq 1$	$(1,1)$
$\begin{bmatrix} 0 & 1 & * & \\ & & & 1 \end{bmatrix}$	$\geq \underline{1}$	≥ 1	$\geq \underline{2}$	$(1,1,1)$ $L \cap F_1 \geq 1$ $L \cap F_3 \geq 2$	$(2,1)$
$\begin{bmatrix} 0 & 0 & 1 & \\ & & & 1 \end{bmatrix}$	$\geq \underline{1}$	$\geq \underline{2}$	≥ 2	$L \cap F_1 \geq 1$ $(1,2,1)$ $L \cap F_2 \geq 2$	$(2,2)$

$0 = F_0$

$\langle e_3 \rangle = F_1$

$\langle e_2, e_3 \rangle = F_2$

$\langle e_1, e_2, e_3 \rangle = F_3$

$\langle e_0 \dots e_3 \rangle = F_4 = V$

$\dim L \cap F_{2+i-\lambda_i} \geq i \quad i = 1,2$

$\lambda_1 =$ FIRST j s.t. $\dim L \cap F_{3-j} \geq 1$

$\lambda_2 =$ FIRST j s.t. $\dim L \cap F_{4-j} \geq 2$

The open part (dense cell) is given by

$$\{L \mid L \cap \langle e_2, e_3 \rangle = 0\}$$

empty in projective space

and for general $Gr(\mathbb{P}^k, \mathbb{P}^n)$ is:

$$\{L \mid L \cap F_{n-k} = 0\}$$

When equality holds in the table of previous page we have the open cell.
The condition with $\geq$ gives the projective closure.