

\Leftrightarrow ^{last} $3 \times (3+5-1)$, 3×4 , 3×2 matrices have rank 2, 1, 0 respectively.

$$\begin{aligned} b_1 &= 9 - 3 + 1 - a_1 = 2 \Rightarrow a_1 = 5 & k+a_1-1 &= 3+5-1=7 \\ b_2 &= 9 - 3 + 2 - a_2 = 5 \Rightarrow a_2 = 3 & &= 3+3-2=4 \\ b_3 &= 9 - 3 + 3 - a_3 = 7 \Rightarrow a_3 = 2 & &= 3+2-3=2 \end{aligned}$$

$$\Rightarrow \left\{ \begin{pmatrix} * & 1 & * & * & 0 & * & 0 & * & * \\ * & 0 & * & * & 1 & * & 0 & * & * \\ * & 0 & * & * & 0 & * & 1 & * & * \end{pmatrix} \right\} = W \cong \mathbb{C}^8 = \mathbb{C}^{3 \cdot 6 - (2+3+5)}$$

① Suppose $\Lambda_0 \in \bar{W} - W$. $\Lambda_0 \in U_{3,1,2,74}$.

$$\Lambda_0 = \begin{pmatrix} 1 & 0 & * & * & * & * & 0 & * & * \\ 0 & 1 & * & * & * & * & 0 & * & * \\ 0 & 0 & * & * & * & * & 1 & * & * \end{pmatrix}$$

If $\Lambda \in W \cap U_{3,1,2,74}$.

$$\Lambda \in \left\{ \begin{pmatrix} 1 & 0 & a_1, a_2, a_3 & 0 & 0 & 0 & 0 \\ 0 & 1 & b_1, b_2, b_3 & 0 & 0 & 0 & 0 \\ 0 & 0 & c_1, c_2, c_3 & * & 1 & 0 & 0 \end{pmatrix} \mid a_1 b_2 = a_2 b_1 \right\}$$

$$a_2 b_3 = a_3 b_2, \quad (a_1, a_2, a_3, b_1, b_2, b_3) \neq (0, 0, \dots, 0)$$

$$\text{Then } \Lambda_0 = \begin{pmatrix} 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 1 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \\ 0 & 0 & c_1 & c_2 & c_3 & c_4 & 1 & 0 & 0 \end{pmatrix}$$

for some $c_1, c_2, c_3, c_4 \in \mathbb{C}$.

$$\Rightarrow \Lambda_0 \in \left\{ \begin{pmatrix} 1 & 0 & a_1, a_2, a_3 & 0 & 0 & 0 & 0 \\ 0 & 1 & b_1, b_2, b_3 & 0 & 0 & 0 & 0 \\ 0 & 0 & c_1, c_2, c_3, c_4 & 1 & 0 & 0 \end{pmatrix} \mid \begin{aligned} a_1 b_2 &= a_2 b_1 \\ a_2 b_3 &= a_3 b_2 \end{aligned} \right\}$$