

\mathbb{F} Λ k -plane in W .

$$\dim(\Lambda \cap V_{n-k+i-a_i}) \geq i \iff \dim(*\Lambda \cap V_{k-i+a_i}^*) \geq a_i$$

$$\dim(*\Lambda \cap V_{n-(n-k)+a_i-i}^*)$$

$$a_1 = \dots = a_{m_1} > a_{m_1+1} = \dots = a_{m_2} > a_{m_2+1} = \dots = a_{m_3} > a_{m_3+1} = \dots$$

$$= a_{m_4} > \dots a_{m_{\ell-1}} > a_{m_{\ell-1}+1} = \dots = a_{m_{\ell}}.$$

a_k i.e. $m_{\ell} = k$

$$\Rightarrow \sum a_i = m_1 \cdot a_{m_1} + (m_2 - m_1) a_{m_2} + (m_3 - m_2) a_{m_3} + \dots + (m_{\ell} - m_{\ell-1}) a_{m_{\ell}}.$$

Suppose $i < j$ and $a_i = a_j > a_{j+1}$

$$\dim(*\Lambda \cap V_{k-i+a_i}^*) \geq a_i$$

$$\dim(*\Lambda \cap V_{k-(i+1)+a_{i+1}}^*) \geq a_{i+1}.$$

$$\vdots$$

$$\dim(*\Lambda \cap V_{k-j+a_j}^*) \geq a_j$$

$$\Rightarrow \text{Since } V_{k-i+a_i}^* > V_{k-(i+1)+a_{i+1}}^* > \dots > V_{k-j+a_j}^* (\because k-i+a_i > k-(i+1)+a_{i+1} > \dots > k-j+a_j),$$

Λ must satisfy $\dim(*\Lambda \cap V_{k-j+a_j}^*) \geq a_j$.

$$\Rightarrow \dim(*\Lambda \cap V_{k-j+a_j}^*) = \dim(*\Lambda \cap V_{n-(n-k)+a_j-j}^*) \geq a_j$$

$\Rightarrow a_{a_j}^* = j$ is reasonable guess.

$$\Rightarrow a_{a_{m_i}}^* = m_i \text{ for all } i$$

$$\Rightarrow a_{a_1}^* = \dots = a_{a_{m_1}}^* = m_1 \Rightarrow a_{a_1}^* \geq 1, a_{a_2}^* \geq 2 \dots$$

$$a_{a_{m_1+1}}^* = \dots = a_{a_{m_2}}^* = m_2 \Rightarrow a_{a_{m_1+1}}^* \geq m_1+1 \dots$$

m_1 m_2