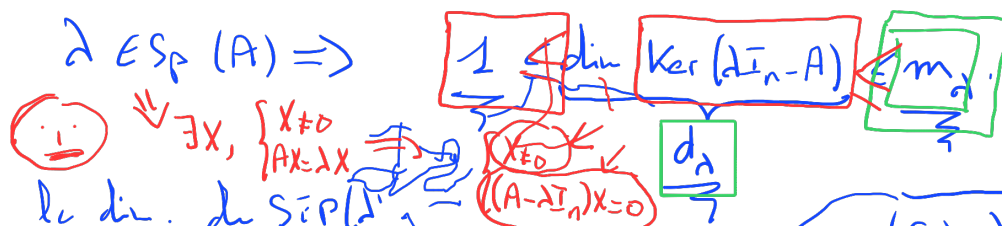


On veut que $\lambda \in \text{Sp}(A) \Rightarrow$

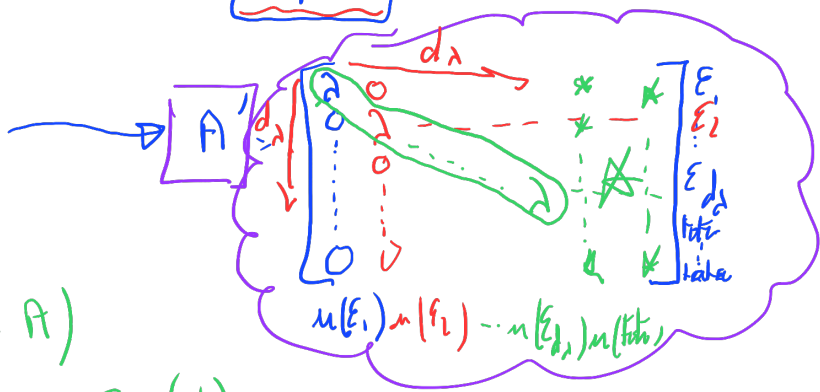


Soit d_λ le dim. de $\text{SEP}_A(\lambda)$

Soit $(\underline{e}_1, \underline{e}_2, \dots, \underline{e}_{d_\lambda})$ une base de $\text{SEP}_A(\lambda)$.

$$A \underline{e}_2 = \lambda \underline{e}_2$$

$$A = [a_{ij}]_{(e_1, \dots, e_n)}$$



$$\chi_A(X) = \det(X I_n - A)$$

$$= (X - \lambda)^{m_\lambda} \times Q(X) \quad \text{et } Q(\lambda) \neq 0$$

Donc $m_\lambda \geq d_\lambda$

$$\chi_{A'}(X) = \det(X I_n - A') = \chi_A(X) \text{ car le pol. car. est}$$

$$= \begin{vmatrix} X - \lambda & 0 & \dots & 0 \\ 0 & X - \lambda & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & X - \lambda \end{vmatrix} = \begin{vmatrix} 1 & 0 & \dots & 0 \\ 0 & 1 & \dots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \dots & 1 \end{vmatrix} = \det(P) \times \det(Q) = (X - \lambda)^{d_\lambda} \times R(X)$$