

$$A = \begin{pmatrix} 20 & 20 & 0 & \dots & 0 \\ 0 & 19 & 20 & \dots & 0 \\ \vdots & 0 & 18 & 20 & \dots \\ \vdots & \vdots & 0 & \ddots & \vdots \\ \underline{\varepsilon} & 0 & 0 & \dots & 20 \\ & & & & 1 \end{pmatrix}$$

A_ε

$A:$ $D(\lambda) = \prod_{k=1}^{20} (\lambda - k)$, $\lambda_i = i$, $i = 1, \dots, 20$

$$\sum_{k=0}^{20} C_k \cdot \lambda^{20-k} \Rightarrow C_{20} = 20!$$

$A_\varepsilon:$ $D(\lambda) = \prod_{k=1}^{20} (\lambda - k) - \varepsilon \cdot 20^{19}$

$$\parallel$$

$$\sum_{k=0}^{20} C_k^\varepsilon \cdot \lambda^{20-k}$$

$$C_{20}^\varepsilon = 20! - \varepsilon \cdot 20^{19}$$

$$\begin{aligned} C_{20}^\varepsilon &= 0 \\ C_{20} &= 20! \end{aligned}$$

$$\Rightarrow \varepsilon = \frac{20!}{20^{19}} \approx 5 \cdot 10^{-3}$$