

$$AIC = -2 \log L + 2p \rightarrow p = \text{no. of parameters}$$

$$AIC = -2 \log L_R + 2p$$

$$= 437.5 + 2 \times 2$$

$$AIC_{\text{corrected}} = -2 \log L_R + 2p \times \left( \frac{N}{N-p} \right) \begin{matrix} \rightarrow \text{no of obs} \\ 4 \times 27 \\ = 108 \end{matrix}$$

$$(X) N=30, p=20, \quad \frac{N}{N-p} = \frac{30}{30-20} = 3 \quad \begin{matrix} \text{(penalty)} \\ \text{(較高)} \end{matrix}$$

$$N=300, p=20, \quad \frac{N}{N-p} = \frac{300}{300-20} = 1.07$$

$$\begin{aligned}
 BIC &= -2 \log L_R + p \times \log(n) \\
 &\quad \downarrow \quad \downarrow \quad n = \text{no of clusters} \\
 &= 2 \times \log(27) \quad 27
 \end{aligned}$$

懲罰大樣本嗎？

No,  $\log(n)$  在同一筆資料下是  
固定的