

Ridge \rightarrow

$$\rightarrow L/E + \alpha [SSC] \xrightarrow{\text{penalty term}} \downarrow$$

$$w_1^2 + w_2^2 + w_3^2 + \dots + w_n^2$$

As $\alpha \uparrow$ $C \downarrow$ $\rightarrow 0'$

$$y = b_0 + b_1 x_1 \leftarrow \alpha = 0.01$$

$$y = b'_0 + b'_1 x_1 \leftarrow \alpha = 0.5$$

$$\cancel{b_1} > \cancel{b'_1}$$

Lasso \rightarrow

$$L/E + \alpha [SAC] \downarrow$$

$$w_1 + w_2 + w_3 + \dots + w_n$$

$\alpha \uparrow$ $C \downarrow = 0'$

Elasticnet

$$L/R + \alpha_1 [SSC] + \alpha_2 [SAC]$$

\downarrow \downarrow

$$\| \theta \|_1^2 \quad \| \theta \|_1 \times$$

\downarrow \downarrow

$$\| w \|_1 \quad \| w \|_1 \times$$

$$\begin{matrix} & v \\ & 0 & 6 & 0 \\ 0 & 0 & 0 \\ & 0 & 1 & 0 \\ & 0 & 0 & 0 \\ 0 & 0 & 0 & 6 \\ & 0 & 0 \end{matrix}$$