

LASSO

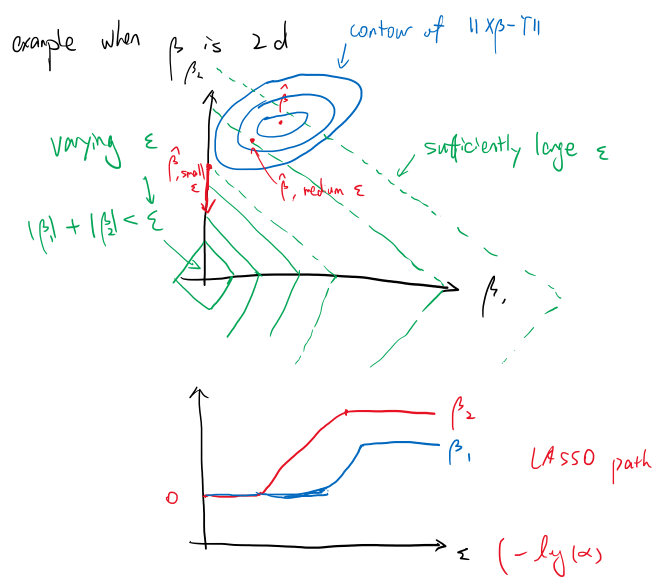
$$\min_{\beta} \|X\beta - Y\| + \alpha \cdot |\beta|$$

$$\updownarrow \text{equivalent}$$

$$\min_{\beta} \|X\beta - Y\| \quad \text{s.t.} \quad |\beta| < \varepsilon$$

$$\varepsilon = f(\alpha)$$

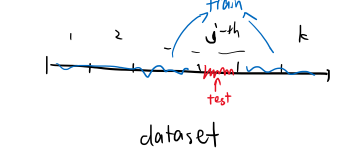
negatively correlated



MSE mean sq. error $\frac{1}{N} \sum_{i=1}^N (y_i - \hat{y}_i)^2$

$R^2 = \frac{SST - SSE}{SST}$

k-fold cross-validation



Decision tree

