

⑧
□ Infinitesimal Model: For animal i

$$y_{ij} = \mu_i + u_i + e_{ij}^* \quad ; \quad u_i \text{ (and } e_{ij}^*) \text{ unknown,}$$

Goal: prediction for u_i
based on y_{ij}

□ Data set:

Animal	y (weight in kg)	
1	$y_1 = 250$	} One observation per animal weight after 1 year
2	$y_2 = 310$	
\vdots	\vdots	
N	$y_N = 293$	

□ Assume:

Use selection of parents such that weight
after 1 year is improved.

□ Predict breeding values based on available information
Call predicted breeding value for animal i : \hat{u}_i