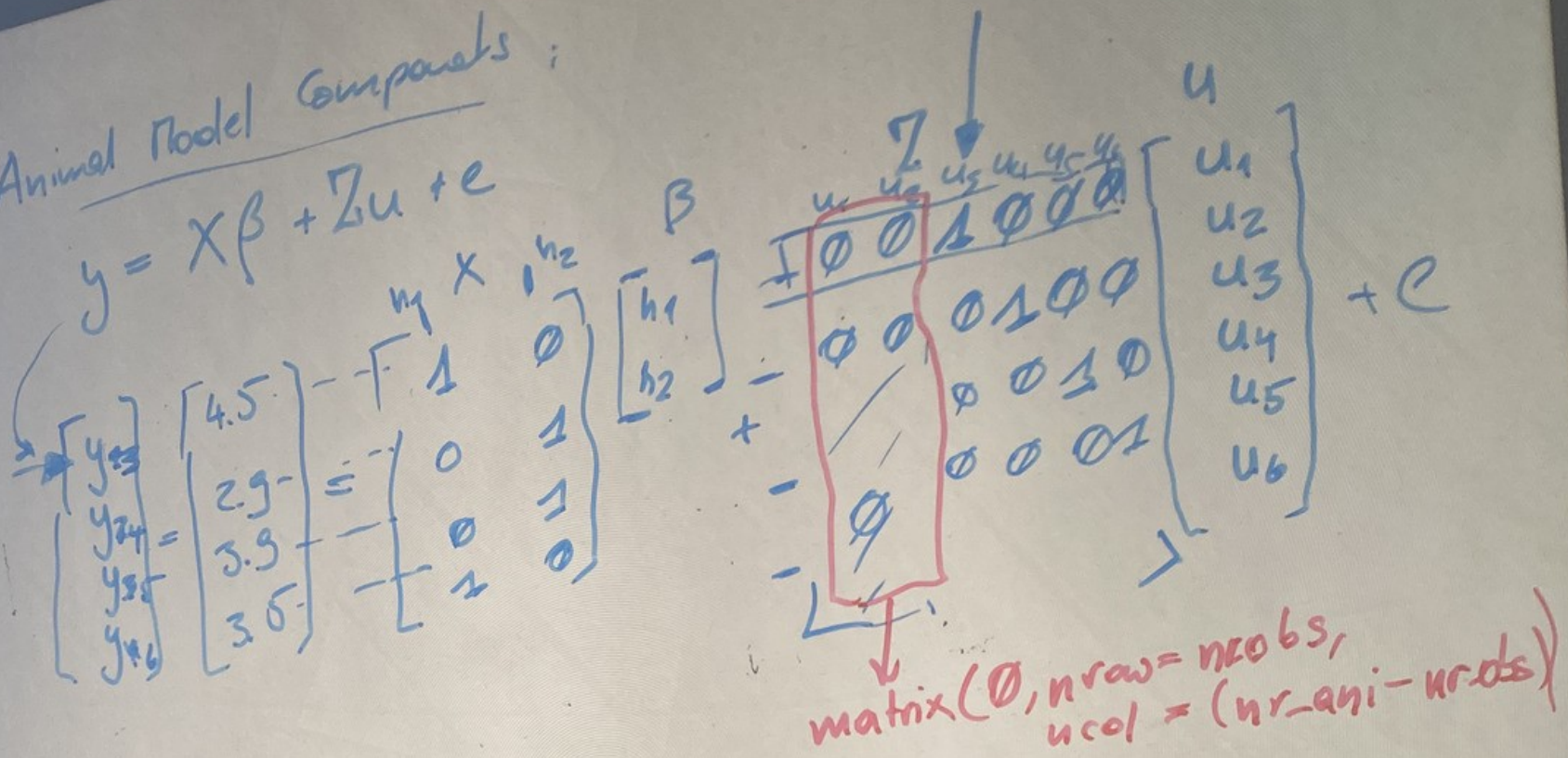
Animal Model Compacts:

$$y = X\beta + Zu + e$$



AnimModel for single observation y_i:

$$y_3 = 4.5 = [1 \;\; 0]\begin{bmatrix} herd_1 \\ herd_2 \end{bmatrix} + \boxed{u_3} + e_3$$

$$y_4 = 2.9 = \quad + \quad \boxed{u_4} + e_4$$

Sire Model $y_3 = herd_1 + \boxed{sire_1} + e_3$