Recap: 2024-04-08

- Fixed linear effect model (FLEM) integrated discrete factors, such as breed into model
- Normal equations from least squares

$$(X^T X)\, b^{(0)} = X^T y$$

where X is a design matrix, linking levels of fixed effects to observations

and $b^{(0)}$ corresponds to one solution, computed as: $b^{(0)} = \underbrace{(X^T X)^-}_{G} X^T y = G X^T y$

- Non-uniqueness of $b^{(0)}$ is shown by

$$\tilde{b} = b^{(0)} + (G(X^T X) - I)\, z \quad ; \text{for any vector } z$$

is also a solution to normal equations

- Solution: Estimable functions of $b^{(0)}$