

- Linear Algebra: vectors / matrices / systems of equations
- Vectors and matrices are use for a simple formulation / description of systems of equations.

System of equation: Matrix A of known coefficients
 vector x of unknowns
 vector b of knowns

$$A \cdot x = b$$

- Applied to genetic evaluation:
 vector x contains: (1) unknown effects of the environment (farm, age, sex, ...)

(2) unknown breeding values

↓
 predictions

$$x = \begin{bmatrix} \text{environmental effects} \\ \text{unknown breeding values for every animal in that population} \end{bmatrix}$$