

Recap 2022-11-11:

□ Numerator Relationship Matrix A

□ Inverse A^{-1} is used in MRE

□ Matrix A contains elements that quantify the probability of two animals sharing common alleles by descent.

} off-diagonal elements of A

Identity by descent (IBD)

two alleles being copies of the same ancestral allele.

□ Diagonal elements of A contain information about inbreeding coefficient (F_i) of animal i .
 F_i is related to the probability of two alleles in the same animal are identical by descent.

F_i can be computed from the relationship coefficient (off-diagonal element of A) between parents s and d of i .