Differential usage of conserved genome positions

Example

genes
aligned genomes, gene expression
aligned genomes, expressed genes only

Differential usage of conserved regulatory regions

aligned genomes, bound TFBS only

Data

aligned genes, expressed

Individuals

A

Properties of a non-linear genotype phenotype mapping

Default genome

 birthstate
phenotype state
on off on off

Completely different genome

phenotype state
on on on on

Deletion of single TFBS

phenotype state
on off on off

Deletion of single TFBS

phenotype state
on on on on

B

aligned upstream regions

Individuals

C