

# Cross-modal neural networks with intra-layer specialisation and inter-layer feedback

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# What is haplotyping and why is it important?

You hopefully know this after the previous three talks...

$$x^2 - y^2 = \int_{10}^{11} x^2 dx$$

# General formalization of the typing.

## Inputs

- ▶ A genotype matrix  $G$ .
- ▶ The rows of the matrix are taxa / individuals.
- ▶ The columns of the matrix are SNP sites / characters.

## Outputs

- ▶ A haplotype matrix  $H$ .
- ▶ Pairs of rows in  $H$  explain the rows of  $G$ .
- ▶ The haplotypes in  $H$  are biologically plausible.