

## Allele Frequencies

- Within lines allele frequencies are no longer constant (Hardy-Weinberg within line does not hold)
- Because allele frequencies are no longer constant  
⇒ additional variation of allele frequencies within lines
- Additional variation is quantified for the ~~the~~ change in allele frequency  $q$

$$\overline{V}_{0q}^2 = \frac{p_0 q_0}{2N} = p_0 q_0 \Delta F$$

where  $p_0$  and  $q_0$  are allele frequencies in the base population

- Variation in allele frequency  $q$ :

$$\overline{V}_q^2 = p_0 q_0 F$$