

Standard eQTL mapping with covariates and hidden factors

Standard eQTL mapping with covariates

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Expression
level

\mathbf{Y}

=

SNP
(Disease state
Tissue)

Geno-
type

$\mathbf{Y}^{(1)}(\mathbf{S})$

+

Age
Gender
Environment

Known
factors

$\mathbf{Y}^{(2)}(\mathbf{F})$

+

Environment
Temperature
Concentration

Hidden
factors

$\mathbf{Y}^{(3)}(\mathbf{X})$

+

Interactions
¹epistatic
²environment
Non-linear effects

others

...

+

Noise

Ψ