

In a Bayesian regression model the slope coefficients follow prior random distributions:

$$y_i = x_i' \beta + e_i, \quad \beta \sim N(\bar{\beta}, \sigma^2 A^{-1})$$

Diagram illustrating the components of the Bayesian regression model equation:

- Error variance** points to σ^2 .
- Precision matrix** points to A^{-1} .
- Priors** points to the prior distribution $N(\bar{\beta}, \sigma^2 A^{-1})$.