BI documentation

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2 Introduction

2.1 1.1 Model set-up

We define a likelihood (e.g., a mathematical formula that specifies the plausibility of the data). The likelihood has parameters (e.g., adjustable inputs) for which we define priors (e.g., initial plausibility assignment for each possible value of the parameter). Considering a linear regression with an intercept (e.g., μ value when x is at zero, or at the mean if the data is centered), a slope (e.g., μ change value when x is incremented by one unit), and assuming the data is centered (as we will always concider in the next chapters):

* Toolpit available for each lines of equation

$$y \sim Normal(\mu, \sigma)$$

$$\mu \sim \alpha + \beta x$$

$$\alpha \sim Normal(0, 1)$$

$$\beta \sim Normal(0, 1)$$

$$\sigma \sim Uniform(0, 1)$$