

Project 2

Marcus Hjørund & Gard Gravdal

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Problem 1

In this problem we will look at a portion from the Tokyo rainfall dataset, which contains daily rainfall from 1951 to 1989. We consider a response to be whether the amount of rainfall exceeded 1mm over the given time period:

$$y_t|x_t \sim \text{Bin}(n_t, \pi(x_t)), \quad \pi(x_t) = \frac{\exp(x_t)}{1 + \exp(x_t)} = \frac{1}{1 + \exp(-x_t)}, \quad (1)$$