

Lab 4: Bayesian Rainfall Analysis

Bayesian GEV model setup, Prior specification strategies, Two-station comparison problem

CEVE 543 Fall 2025

2025-09-19

1 Objectives

1. Set up Bayesian GEV models with informative priors
2. Develop strategies for prior specification in extreme value analysis
3. Compare rainfall patterns between two stations using Bayesian inference

2 Before

! Instructions

Do this before the lab date so that lab itself can go more smoothly.

3 Background and Reading

4 Tasks

Modify the code section below to address the following tasks.

1. Set up Bayesian GEV models with informative prior distributions
2. Develop and justify prior specification strategies for extreme value parameters
3. Compare rainfall patterns between two stations using Bayesian framework
4. Analyze posterior distributions and assess model differences

5 Code

Bibliography