

R CODE INSTRUCTIONS

The R code submitted with the manuscript can reproduce all results in the paper. The R code was run on version 4.3 on a Mac darwin17.0 operating system, iMac 2020, with 3.8 GHz 8-Core Intel Core i7 processor and 16 GB 2667 MHz DDR4 memory.

In order to run the R code, run the scripts in the following order:

1. SV_setup.R
2. SV_llh.R
3. SV_hyperparam.R
4. SV_norm.R
5. SV_t.R
6. SV_t_NEW.R
7. convergence_diag.R
8. prior_sens.R
9. SV_post_plots.R
10. SV_residual_analysis.R

The R scripts SV_norm, SV_t, and SV_t_NEW take the longest time as they implement the Gibbs sampler for 450,000 iterations. This takes on the order of a few (about 4) hours on the previously specified machine.

Make sure that the working directory is set to where the included “setup_dat.RData” is located.