

Analyzing Global Terrorism Using Bayesian Hierarchical Models & Logistic Regression

Author: Will Noone

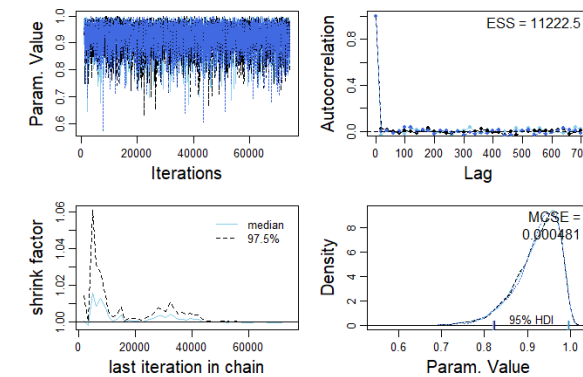
George Washington University: DATS 6450 – Bayesian Methods for Data Science

Appendix

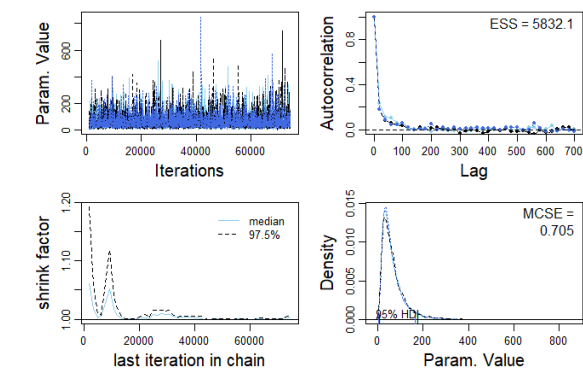
Analysis #1 – Hierarchical Model

Hierarchical Model – MCMC Diagnostics

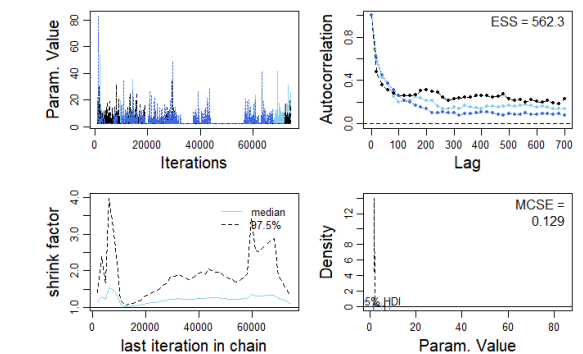
theta[1]



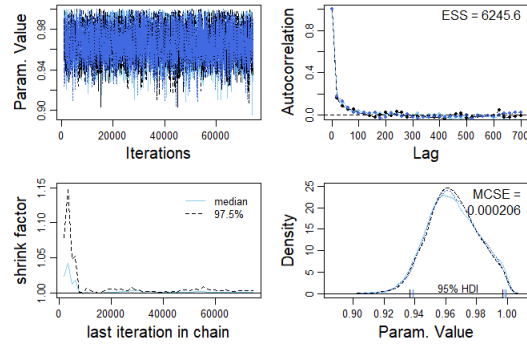
kappaO



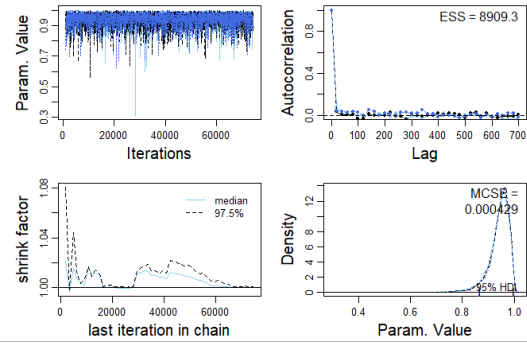
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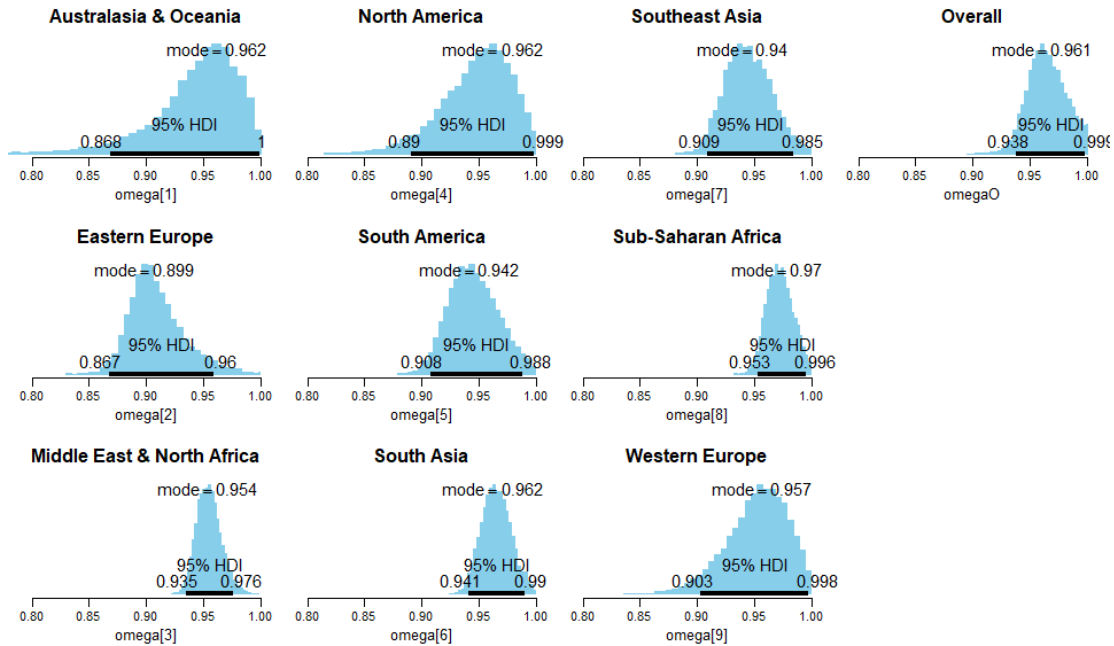
omegaO



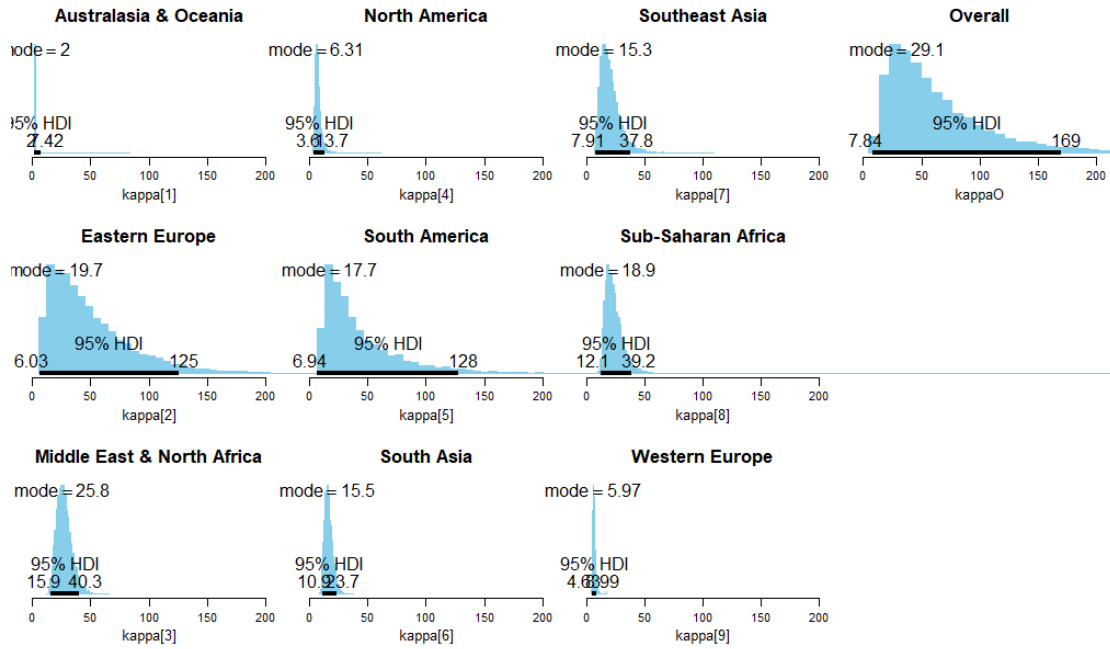
omega[1]



Hierarchical Model – Posteriors for Omega



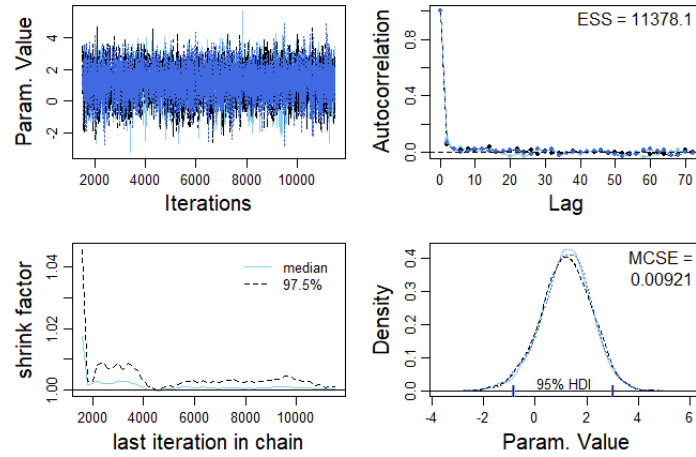
Hierarchical Model – Posteriors for Kappa



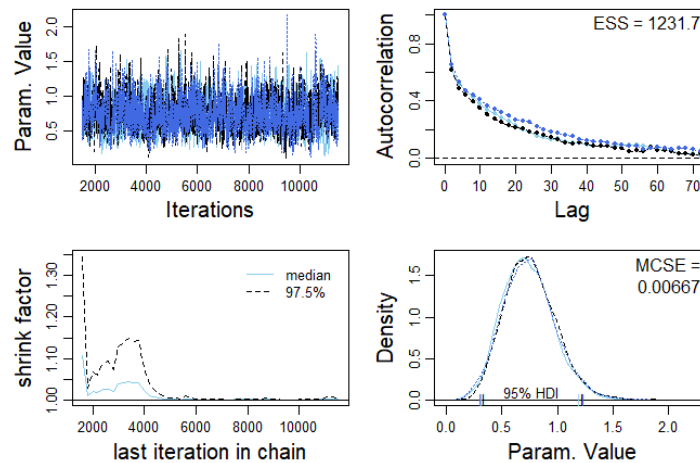
Analysis #2 – Robust Multi Logistic Linear Regression

Model 1: MCMC Diagnostics

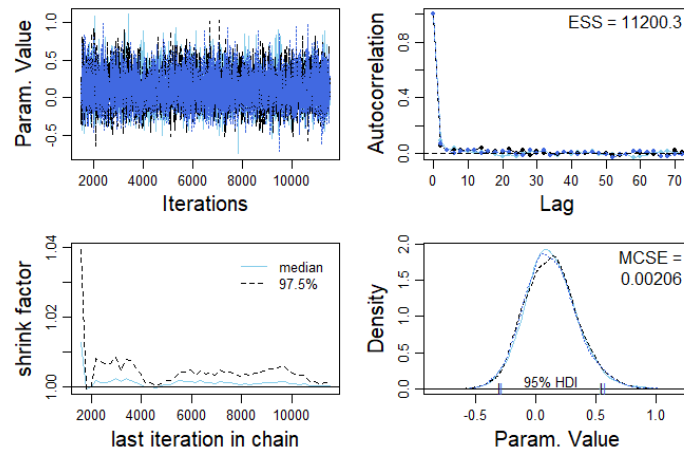
beta0



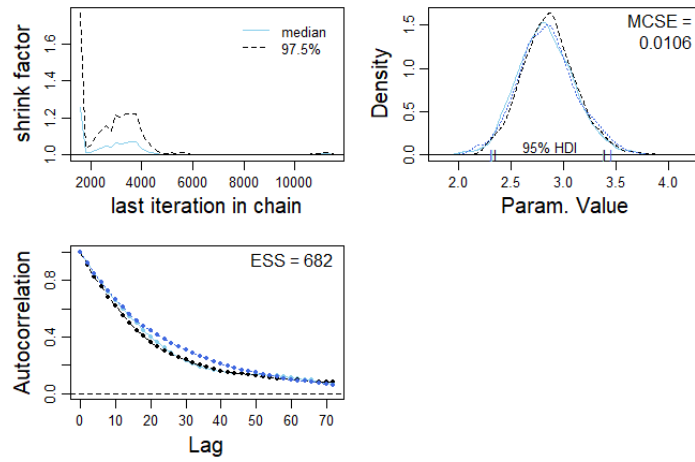
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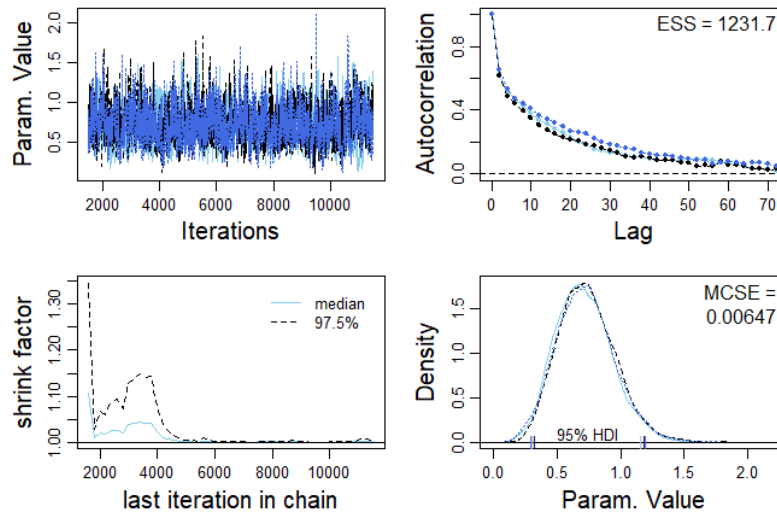
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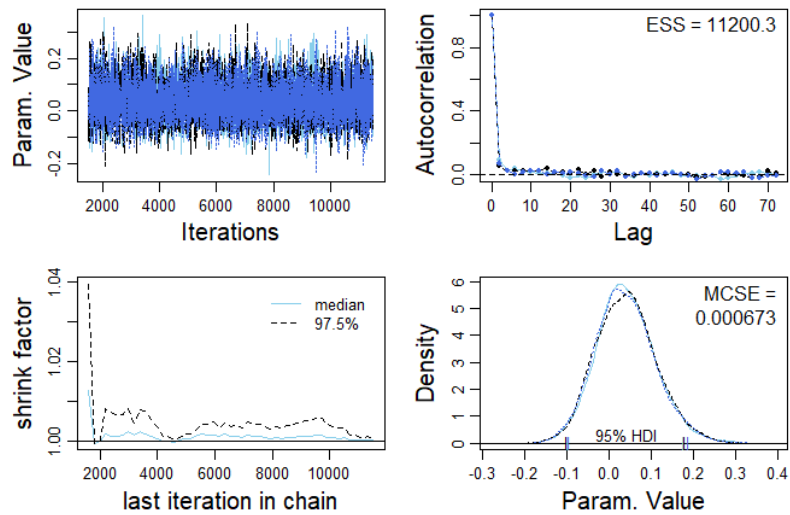
zbeta0



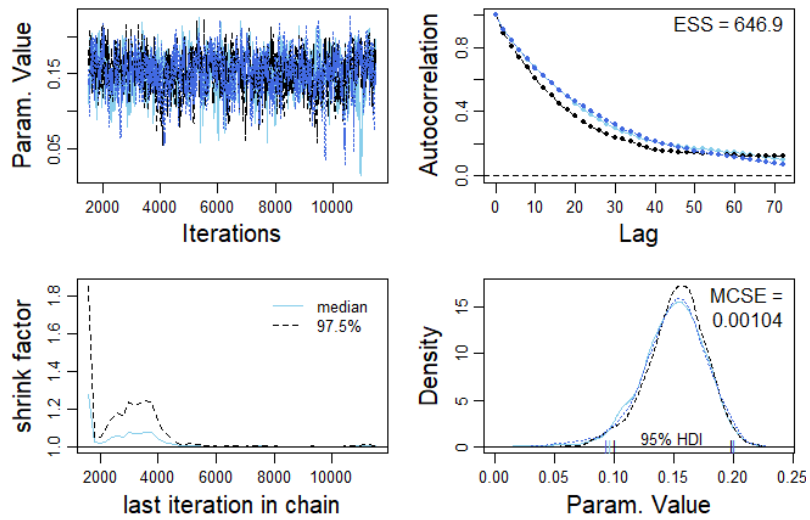
zbeta[1]



zbeta[2]

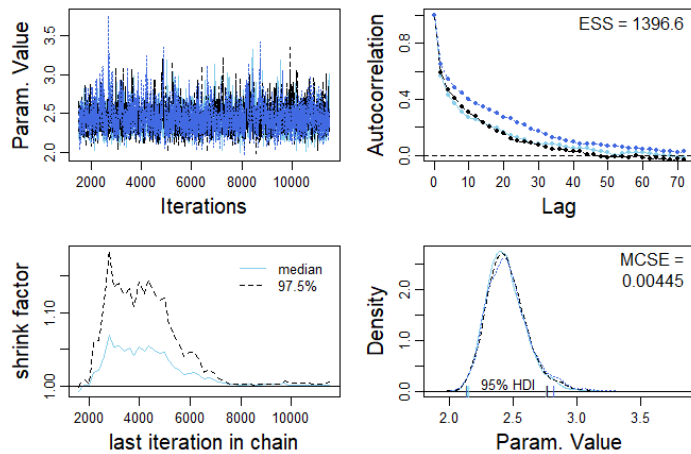


guess

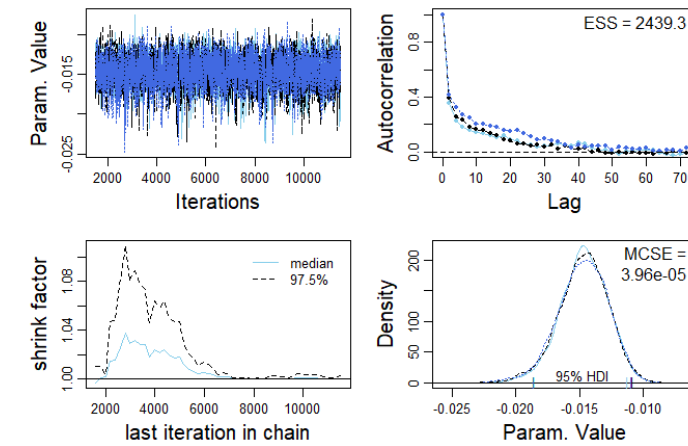


Model 2: MCMC Diagnostics

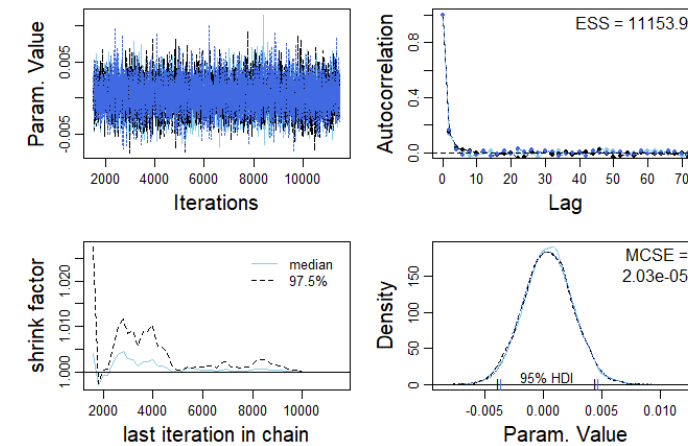
beta0



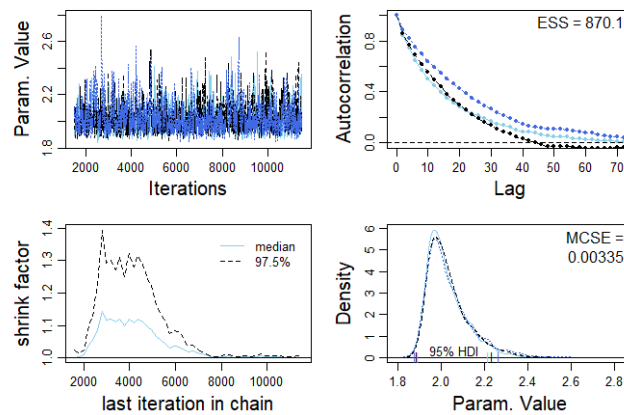
beta[1]



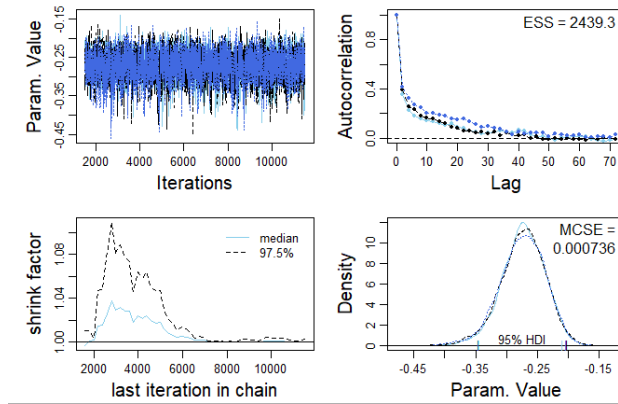
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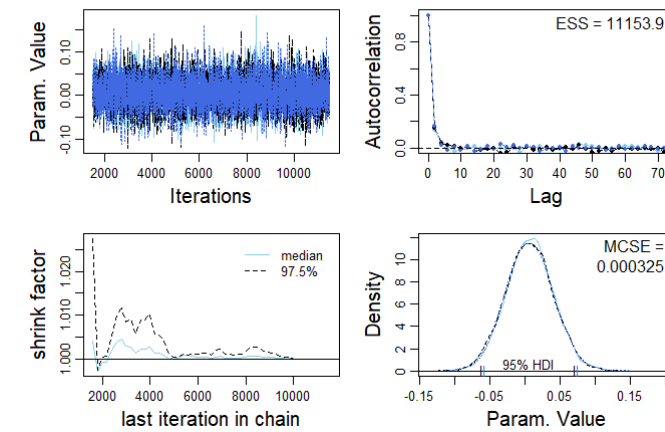
zbeta0



zbeta[1]



zbeta[2]



guess

