

Measuring the Quality of MCMC Output Workshop

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Bridging the Gap between Theory and Practice

How can we best bridge the gap between theory and practice?

MCMC diagnostics

Are there certain MCMC diagnostics (and packages) that are particularly useful in practice in both teaching/research?

Potential answers

- ▶ Traceplots:
- ▶ Estimated density:
- ▶ Running average plots:
- ▶ Autocorrelation: The lag- k autocorrelation is the correlation between every sample and the sample k steps that occurred prior.
- ▶ Effective sample size: an estimate for the number of independent samples (taking into account autocorrelations) generated by the MCMC run.
- ▶

One place where most of these diagnostics can be found is using the coda package on CRAN.