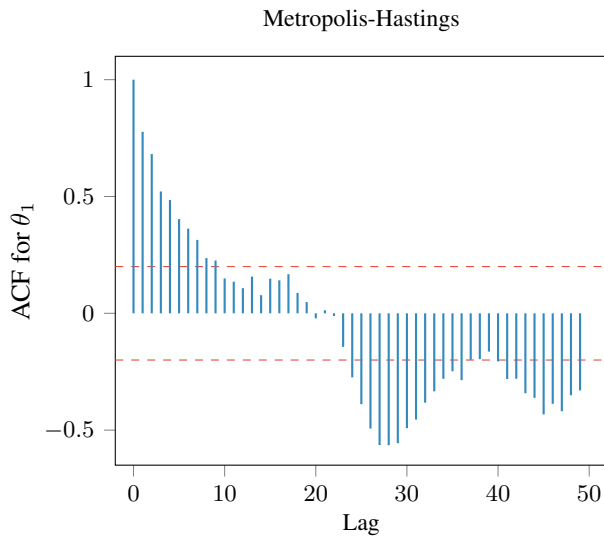
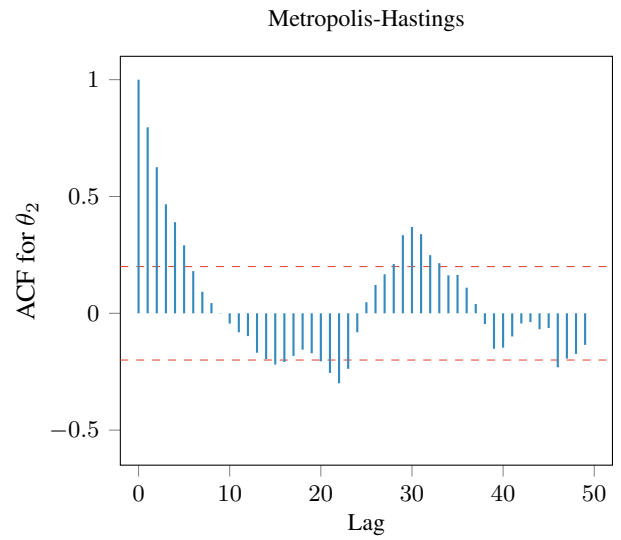


A Autocorrelation Plots

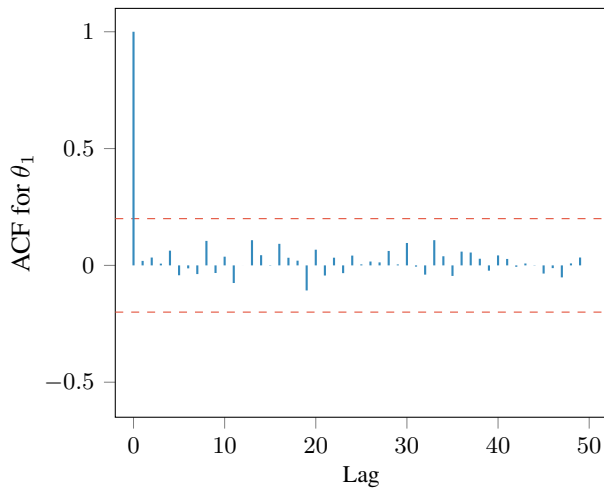
Here we report the autocorrelation plots for the experiment described in section 5.1, respectively for θ_1 and θ_2 . Standard Metropolis-Hastings can be found on the left while our method, SGLD with AdaGeo, on the right. While Metropolis-Hastings suffers from high autocorrelation despite a long burn-in and large thinning factor, samples from SGLD-AdaGeo does not show any autocorrelation issues.



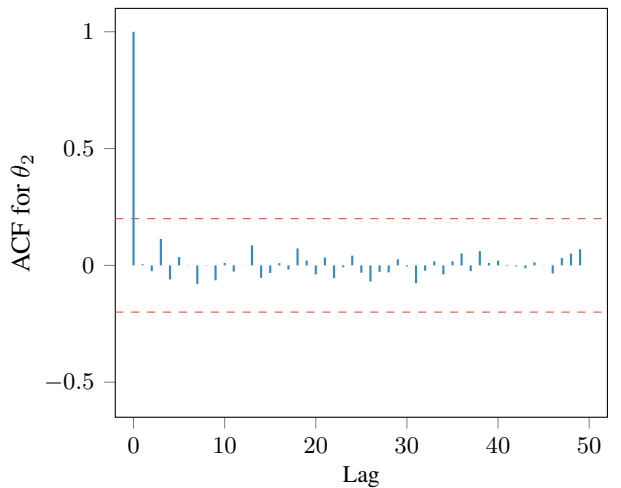
(a) Metropolis-Hastings: Autocorrelation function for θ_1
AdaGeo-SGLD



(b) Metropolis-Hastings: Autocorrelation function for θ_2
AdaGeo-SGLD



(c) AdaGeo-SGLD: Autocorrelation function for θ_1



(d) AdaGeo-SGLD: Autocorrelation function for θ_2