

Abstract: Latent Gaussian processes are widely applied in many fields like statistics, inverse problems and machine learning. A popular method for inference is through the posterior distribution, which is typically carried out by MCMC algorithms. Often, the problems are inherently infinite dimensional in nature, and MCMC algorithms are known to break down in infinite dimensional setting. Standard ways to circumvent this issue involve a Crank-Nicolson approximation of an appropriate SPDE. In this talk, we shall present a brief overview of MCMC algorithms in infinite dimensions, and propose several adaptive versions of an infinite dimensional analog of the well-known Metropolis-adjusted Langevin algorithm.