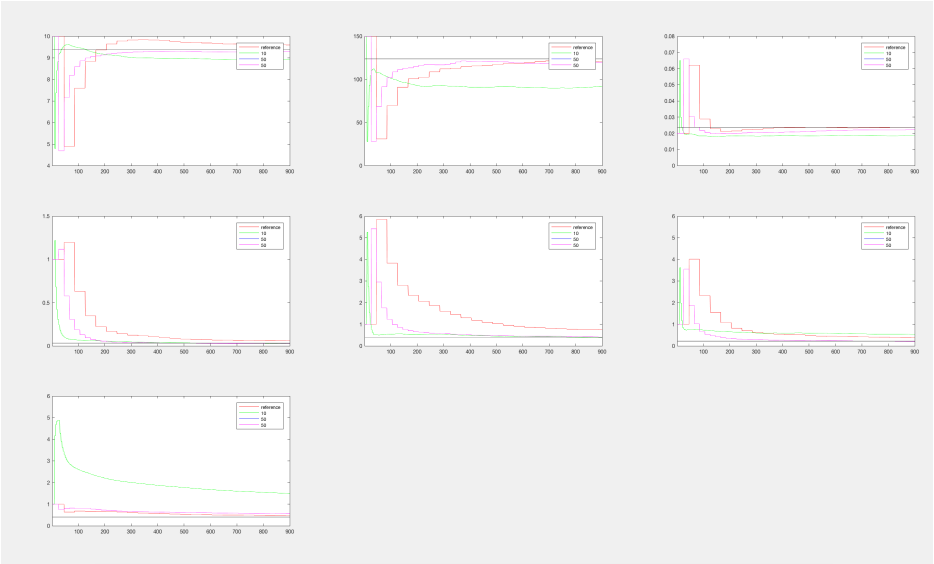
variational Inference SAEM

In this document, we will introduce a new proposal for our Metropolis hastings algorithm. The construction of this kernel is based off of approximation methods that consist in approximating the incomplete log likelihood. The following methods are applicable to continuous and discrete hierarchical models (the likelihood is whether discrete or continuous and the prior on the latent variable is always continuous).

The Model

We study a classical missing data problem where:



s diffusion is driven by the time derivative of a Brownian motion W. It is proven that this diffusion admits as stationary distribution π. We'll use the Euler-Maruyama discretization of this diffusion such as: