References to Read

March 20, 2015

For Tempering:

- Adaptive Parallel Tempering Algorithm by Blazej Miasojedow, Eric Moulines and Matti Vihola.
  - Applying an adaptive tempering for MCMC.
  - Running L chains pararelly, each targeting a tempered version of the target $\pi^{\beta^{(l)}}(x)$.
  - Propagating each chain by a random walk MH step.
  - Also swapping adjacent states (in a random manner, read the paper for details).
  - The adaptiveness is in choosing the temperatures $\{\beta^{(l)}\}_{1 \leq l \leq L}$.
    This is done in a non-trivial manner.
  - Has a whole lot of theoretical results with proofs.
- An Adaptive SMC Method for Approximate Bayesian Computation by Pierre Del Moral, Arnaud Doucet and Ajay Jasra.
  - All this does is that it runs SMC samplers for ABC.
  - The 'adaptive' part is that it tries to keep the ESS of the SMC sampler from becoming too low and adapts the sequence of temperatures (in this case, tolerance levels) to do this.
  - Should be implementable for TARN as well.
  - Works on path space, so computationally expensive.
- Density-Tempered Marginalized SMC Sampler by Jin-Chuan Duan and Andras Fulop.
  - (this does not seem to be doing much, just applying the idea of the above paper in the psuedo-marginal case, but should read again carefully)
- Parallel Tempering: Theory, Applications and New Perspectives by David J. Earl and Michael W. Deem.

For normalizing constant:

- Papers that Ajay and Alex sent on 19th March 2015