UPDATES - MITACS PROJECT

1 Week 1

1.1 Deciding on the project

We talked about three project ideas

1. Explicit block couplings on "symmetric", "big" Ω's.
   Eg. The Ising model on $\mathbb{Z}_n^2$
2. Existence of MMC's Look at prof Aaron's notes on MMC.
3. Computing couplings for stats. (Eg. work done by Jacob Pierre)
   Read: Pierre's notes on Couplings

I decided to try the third one first.

1.2 To proceed on the third project

There were three tasks to be done.

1. Set up dropbox to write notes
   Update: Done.
2. Find Pierre's notes on Couplings and read a bit.
   Update: I found the notes. I'm reading them up, and will be done with 3 chapters of it by our next meeting (I guess on Tuesday)
3. Try a simple example (Suggestion : MH algoritm on $N(0,1)$ with mirror and maximal)