# Metropolis Hastings as correction scheme

Recall Gibbs sampling

Lets make it parallel

It's wrong now, but can correct with Metropolis Hastings!

$$x_1^{k+1} \sim p(x_1 \mid x_2 = x_2^k, x_3 = x_3^k)$$

$$x_2^{k+1} \sim p(x_2 \mid x_1 = x_1^k, x_3 = x_3^k)$$

$$x_3^{k+1} \sim p(x_3 \mid x_1 = x_1^k, x_2 = x_2^k)$$