According to Wikipedia, if , then

Assume that:

#----------------------------------------------

Let . Furthermore, assume that:

where

For our priors, we assume that:

The truncated stick-breaking prior is given by:

and .

#----------------------------------------------

FCD:

* Sample : this is sampled using a random walk MH algorithm
* Sample : this is sampled using a random walk MH algorithm
* Sample : this is sampled from a categorical distribution, for which:
* Sample

This implies that