





Flexible Ecological Inference using Variational Methods

Jameson Quinn (work with Mira Bernstein)

3/13/2019

Nodes

Table 1: Node types

Type	Syntax	Output
Latent variable	<code>\node[latent]</code>	
Observed variable	<code>\node[obs]</code>	
Deterministic	<code>\node[det]</code>	
Constant	<code>\node[const]</code>	a
Factor	<code>\node[factor]</code>	\mathcal{N} 

Edges

Table 2: Edge types

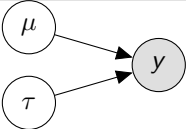
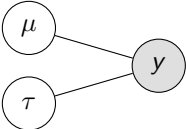
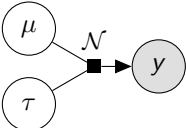
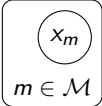
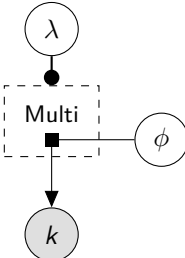
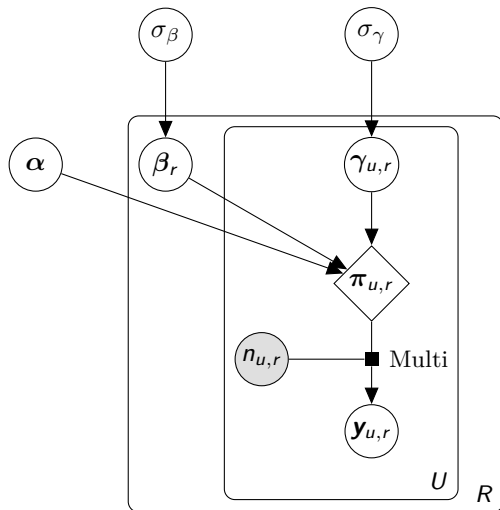
Type	Output	Syntax
Directed		<code>\edge[opts]{inputs}{outputs}</code>
Undirected		<code>\edge[-,opts]{inputs}{output}</code>
Factor		<code>\factoredge[opts]{inputs}{via}{ou</code>

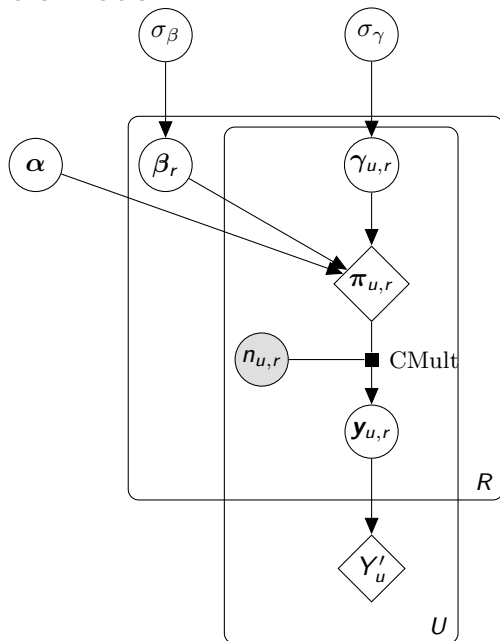
Table 3: Utilities

Type	Syntax	Output
Plate	<code>\plate</code>	
Gate		

simple model



usable model



Guide

