“Fullest” model

Just consider 1 cluster and there are n neurons in this cluster.

, where:

1. , is observable.
2. , , , is not observable.
3. , are cluster-dependent

Let

Use AR(1) for (not necessary, but just follow DGLM and it’s easier for coding) and , independently.

Because of clustering, putting constraints on is inappropriate. For simplicity, just use the diagonal constraint for linear dynamic of : and .

A more careful constraints: is diagonal, with