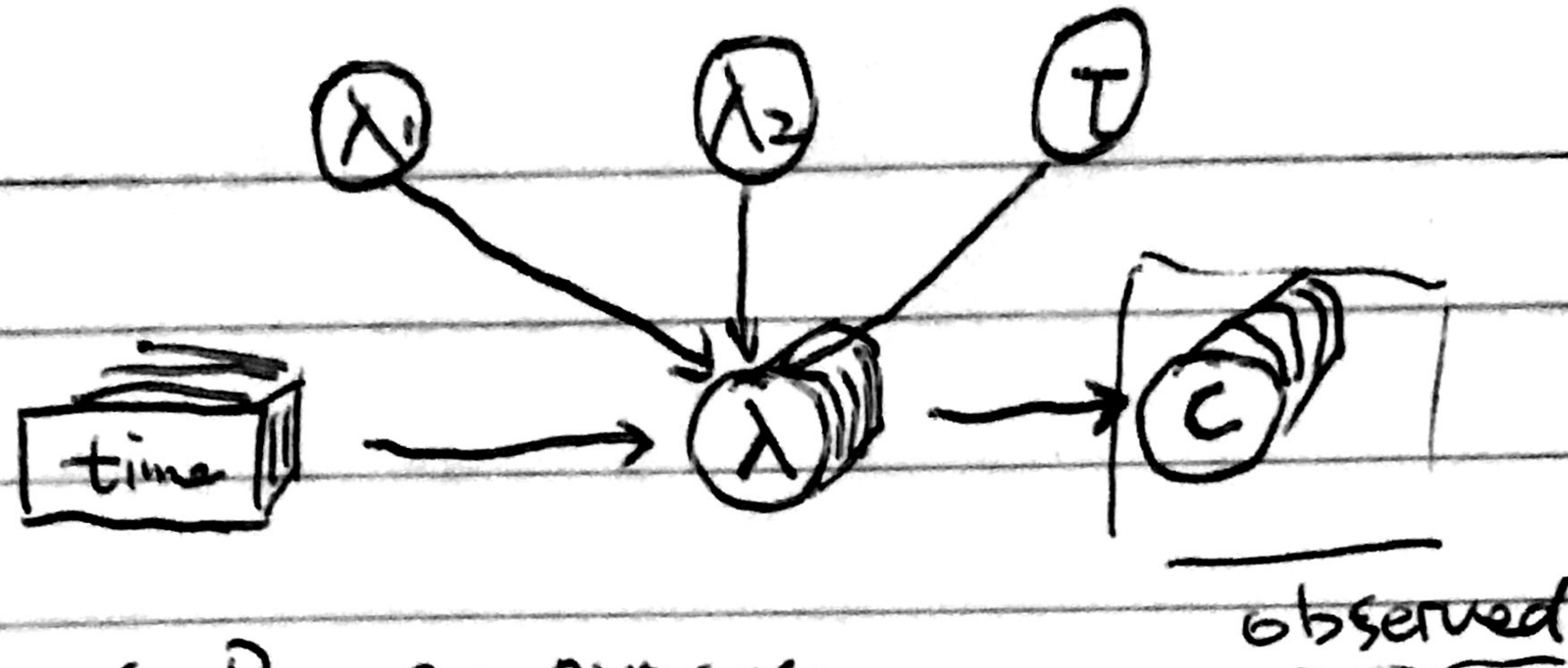

$\lambda_1 \in R \sim exp(\alpha)$

$\lambda_2 \in R \sim exp(\alpha)$

$\tau \in \mathbb{Z} \sim unif(n)$

$$\lambda \in R^{1\times n} = \begin{cases} \lambda_1 & t < \tau \\ \lambda_2 & t \geq \tau \end{cases}$$

$C \in R^{1\times n}$, $C[i] \sim pos(\lambda[i])$

probability distributions:

$p(\lambda_1) \sim exp(\alpha)$

$P(\lambda_2) \sim exp(\alpha)$

$p(\tau) \sim unif(n)$

$p(\lambda \mid \lambda_1, \lambda_2, \cancel{\alpha}\tau) = 1$ (given $\lambda_1, \lambda_2, \tau$; π is fixed

$p(C \mid \lambda) = \prod_{i=0} pos(\lambda[i])$

Joint distribution: $P(\lambda_1, \lambda_2, \tau, \lambda, C)$

$= p(\lambda_1) p(\lambda_2) P(\tau) \cdot 1 \cdot \prod_{i=0}^{n} pos(\lambda[i])$

(Gibbs sampling)

postir distri...

$$p(\lambda_1 \mid C) \propto \sum_{\lambda_2} \sum_{\tau} P(\lambda_1, \lambda_2, \tau, \lambda, C)$$