

**Bayesian Learning and Inference
in Recurrent Switching Linear Dynamical Systems**

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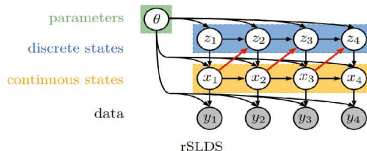
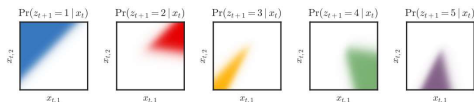
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Model Set-up

- Observation $y_t = Cx_t + d + w_t$, $w_t \stackrel{\text{iid}}{\sim} \mathcal{N}(0, S)$
- Continuous latent state $x_{t+1} = A_{z_{t+1}}x_t + b_{z_{t+1}} + \nu_t$, $\nu_t \stackrel{\text{iid}}{\sim} \mathcal{N}(0, Q_{z_{t+1}})$
- Discrete latent state $z_t \in \{1, \dots, K\}$
 - SLDS $z_{t+1}|z_t \sim \pi_{z_t}$
 - rSLDS $z_{t+1}|z_t, x_t \sim \pi_{SB}(v_{t+1})$, $v_{t+1} = R_{z_t}x_t + r_{z_t}$





Model

Stick Breaking Logistic Regression

Stick Breaking Logistic Regression



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- Another item
 - A subitem
 - Another subitem

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1. An item
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 - 2.1 A subitem
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Example

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