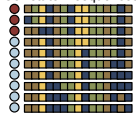
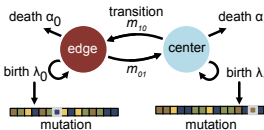
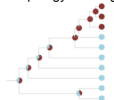


a Input

Cell state + sequences

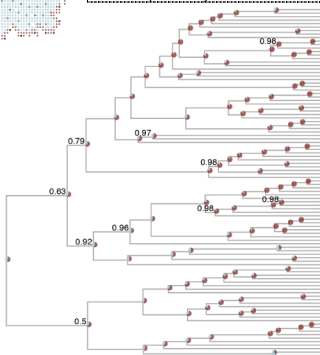
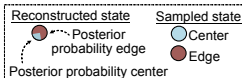
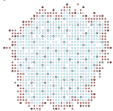
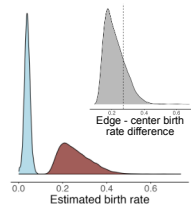
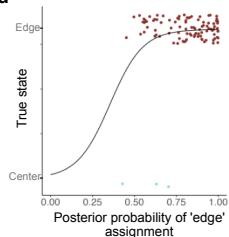
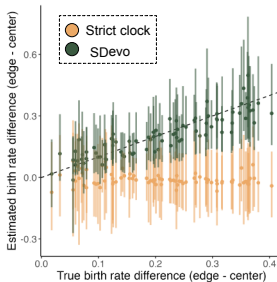
**State-Dependent Evolutionary Model (SDevo)****Output**

• Tree topology + timing



• Ancestral state reconstruction

• Parameter estimation

 $\lambda_1, \lambda_0, \alpha_1, \alpha_0, m_{01}, m_{10}$ **b****c****d****e****f**