An FST generates a descendant sequence given an ancestral one. Conditional probability that sequence y evolved from x.

$$\mathcal{P}(y \mid x) \qquad\qquad x \xrightarrow{\Delta T} y$$

Composition operation

$$\mathcal{P}(z \mid x) = \sum_{y} \mathcal{P}(z \mid y)\mathcal{P}(y \mid x) \quad x \xrightarrow{\Delta T} \forall y \xrightarrow{\Delta T} z$$