$$P(0.02) = \begin{matrix} 0.980 & 0.008 & 0.008 & 0.004 \\ 0.006 & 0.985 & 0.007 & 0.002 \\ 0.011 & 0.015 & 0.972 & 0.002 \\ 0.011 & 0.008 & 0.004 & 0.977 \end{matrix}$$

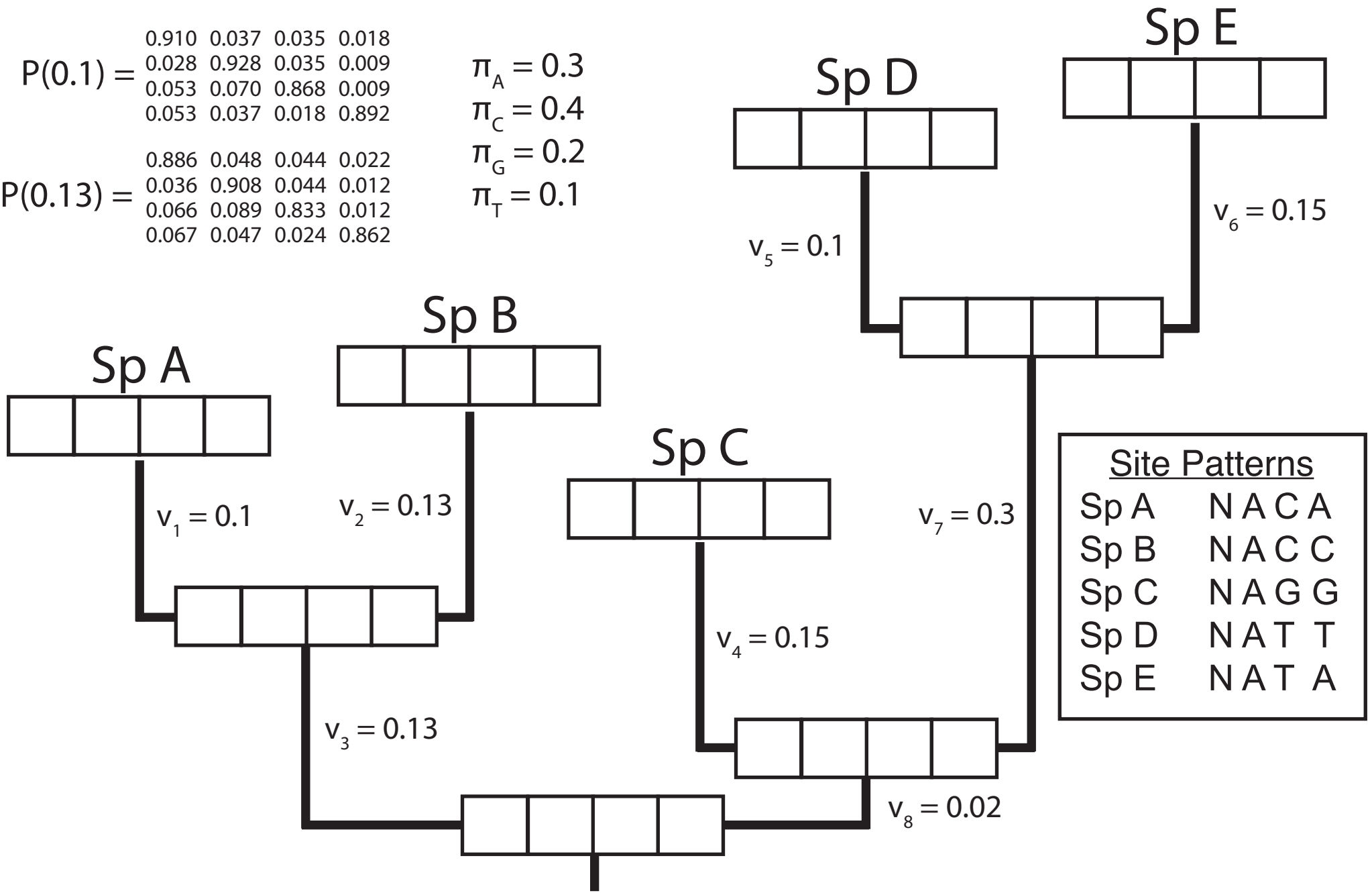
$$P(0.15) = \begin{matrix} 0.871 & 0.054 & 0.050 & 0.025 \\ 0.041 & 0.895 & 0.051 & 0.013 \\ 0.075 & 0.100 & 0.811 & 0.014 \\ 0.076 & 0.054 & 0.027 & 0.843 \end{matrix}$$

$$P(0.3) = \begin{matrix} 0.765 & 0.102 & 0.088 & 0.045 \\ 0.077 & 0.810 & 0.088 & 0.025 \\ 0.131 & 0.176 & 0.666 & 0.027 \\ 0.135 & 0.100 & 0.052 & 0.713 \end{matrix}$$

$$P(0.1) = \begin{matrix} 0.910 & 0.037 & 0.035 & 0.018 \\ 0.028 & 0.928 & 0.035 & 0.009 \\ 0.053 & 0.070 & 0.868 & 0.009 \\ 0.053 & 0.037 & 0.018 & 0.892 \end{matrix}$$

$$P(0.13) = \begin{matrix} 0.886 & 0.048 & 0.044 & 0.022 \\ 0.036 & 0.908 & 0.044 & 0.012 \\ 0.066 & 0.089 & 0.833 & 0.012 \\ 0.067 & 0.047 & 0.024 & 0.862 \end{matrix}$$

$\pi_A = 0.3$
$\pi_C = 0.4$
$\pi_G = 0.2$
$\pi_T = 0.1$



Site Patterns

Sp A	N A C A
Sp B	N A C C
Sp C	N A G G
Sp D	N A T T
Sp E	N A T A

Likelihood =