

TABLE 1: BLOCK PROBABILITIES IN TERMS OF COORDINATES

1×1 blocks

$$p(0) = \frac{1}{2}(1 - \gamma)$$

$$p(1) = \frac{1}{2}(1 + \gamma)$$

1×2 blocks

$$p(0\ 0) = \frac{1}{4}(1 - 2\gamma + \beta_-)$$

$$p(1\ 0) = \frac{1}{4}(1 - \beta_-)$$

$$p(0\ 1) = \frac{1}{4}(1 - \beta_-)$$

$$p(1\ 1) = \frac{1}{4}(1 + 2\gamma + \beta_-)$$

2 × 2 blocks

$$\begin{aligned}
 p \begin{pmatrix} 0 & 0 \\ 0 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad -4\gamma \quad +2\beta_- \quad +2\beta_+ \quad +1\beta_\backslash \quad +1\beta_/ \quad -1\theta_\perp \quad -1\theta_\ulcorner \quad -1\theta_\top \quad -1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 1 & 0 \\ 0 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad -2\gamma \quad \quad \quad -1\beta_\backslash \quad +1\beta_/ \quad -1\theta_\perp \quad +1\theta_\ulcorner \quad +1\theta_\top \quad +1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 0 & 1 \\ 0 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad -2\gamma \quad \quad \quad +1\beta_\backslash \quad -1\beta_/ \quad +1\theta_\perp \quad -1\theta_\ulcorner \quad +1\theta_\top \quad +1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 1 & 1 \\ 0 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad \quad +2\beta_- \quad -2\beta_+ \quad -1\beta_\backslash \quad -1\beta_/ \quad +1\theta_\perp \quad +1\theta_\ulcorner \quad -1\theta_\top \quad -1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 0 & 0 \\ 1 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad -2\gamma \quad \quad \quad +1\beta_\backslash \quad -1\beta_/ \quad +1\theta_\perp \quad +1\theta_\ulcorner \quad +1\theta_\top \quad -1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 1 & 0 \\ 1 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad \quad -2\beta_- \quad +2\beta_+ \quad -1\beta_\backslash \quad -1\beta_/ \quad +1\theta_\perp \quad -1\theta_\ulcorner \quad -1\theta_\top \quad +1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad \quad -2\beta_- \quad -2\beta_+ \quad +1\beta_\backslash \quad +1\beta_/ \quad -1\theta_\perp \quad +1\theta_\ulcorner \quad -1\theta_\top \quad +1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 1 & 1 \\ 1 & 0 \end{pmatrix} &= \frac{1}{16} (1 \quad +2\gamma \quad \quad \quad -1\beta_\backslash \quad +1\beta_/ \quad -1\theta_\perp \quad -1\theta_\ulcorner \quad +1\theta_\top \quad -1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 0 & 0 \\ 0 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad -2\gamma \quad \quad \quad -1\beta_\backslash \quad +1\beta_/ \quad +1\theta_\perp \quad +1\theta_\ulcorner \quad -1\theta_\top \quad +1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad \quad -2\beta_- \quad -2\beta_+ \quad +1\beta_\backslash \quad +1\beta_/ \quad +1\theta_\perp \quad -1\theta_\ulcorner \quad +1\theta_\top \quad -1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 0 & 1 \\ 0 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad \quad -2\beta_- \quad +2\beta_+ \quad -1\beta_\backslash \quad -1\beta_/ \quad -1\theta_\perp \quad +1\theta_\ulcorner \quad +1\theta_\top \quad -1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 1 & 1 \\ 0 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad +2\gamma \quad \quad \quad +1\beta_\backslash \quad -1\beta_/ \quad -1\theta_\perp \quad -1\theta_\ulcorner \quad -1\theta_\top \quad +1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 0 & 0 \\ 1 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad \quad +2\beta_- \quad -2\beta_+ \quad -1\beta_\backslash \quad -1\beta_/ \quad -1\theta_\perp \quad -1\theta_\ulcorner \quad +1\theta_\top \quad +1\theta_\bot \quad +1\alpha) \\
 p \begin{pmatrix} 1 & 0 \\ 1 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad +2\gamma \quad \quad \quad +1\beta_\backslash \quad -1\beta_/ \quad -1\theta_\perp \quad +1\theta_\ulcorner \quad -1\theta_\top \quad -1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 0 & 1 \\ 1 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad +2\gamma \quad \quad \quad -1\beta_\backslash \quad +1\beta_/ \quad +1\theta_\perp \quad -1\theta_\ulcorner \quad -1\theta_\top \quad -1\theta_\bot \quad -1\alpha) \\
 p \begin{pmatrix} 1 & 1 \\ 1 & 1 \end{pmatrix} &= \frac{1}{16} (1 \quad +4\gamma \quad +2\beta_- \quad +2\beta_+ \quad +1\beta_\backslash \quad +1\beta_/ \quad +1\theta_\perp \quad +1\theta_\ulcorner \quad +1\theta_\top \quad +1\theta_\bot \quad +1\alpha)
 \end{aligned}$$