

$$\delta_{i_ , j_} := \text{If}[i = j, 1, 0];$$

$$\mathbf{gRules}_{s_ , i_ , j_} :=$$

$$\left\{ \mathbf{g}_{i\beta_} \mapsto \delta_{i\beta} + T^s \mathbf{g}_{i+1,\beta} + (1 - T^s) \mathbf{g}_{j+1,\beta}, \right.$$

$$\mathbf{g}_{j\beta_} \mapsto \delta_{j\beta} + \mathbf{g}_{j+1,\beta}, \mathbf{g}_{\alpha_ , i} \mapsto T^{-s} (\mathbf{g}_{\alpha, i+1} - \delta_{\alpha, i+1}),$$

$$\left. \mathbf{g}_{\alpha_ j} \mapsto \mathbf{g}_{\alpha, j+1} - (1 - T^s) \mathbf{g}_{\alpha i} - \delta_{\alpha, j+1} \right\}$$