

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

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

$$\mathbf{g}_{\nu_ j \beta_} \mapsto \mathbf{g}_{\nu j^+ \beta} + \delta_{j \beta}, \quad \mathbf{g}_{\nu_ i \beta_} \mapsto T_{\nu}^s \mathbf{g}_{\nu i^+ \beta} + (1 - T_{\nu}^s) \mathbf{g}_{\nu j^+ \beta} + \delta_{i \beta},$$

$$\mathbf{g}_{\nu_ \alpha_ i^+} \mapsto T_{\nu}^s \mathbf{g}_{\nu \alpha i} + \delta_{\alpha i^+}, \quad \mathbf{g}_{\nu_ \alpha_ j^+} \mapsto \mathbf{g}_{\nu \alpha j} + (1 - T_{\nu}^s) \mathbf{g}_{\nu \alpha i} + \delta_{\alpha j^+}$$

$$\}$$