

$$\sum_{i,j \in -1,0,1} A_{G,0,0}^{i,j} U_{i,j}^h = 0 \quad (1)$$

Four corner nodes

$$\begin{aligned} A_{G,0,0}^{-1,-1} &= t \\ A_{G,0,0}^{-1,0} &= t \\ A_{G,0,0}^{0,-1} &= t \\ A_{G,0,0}^{0,0} &= t \end{aligned}$$