

$$\mathbf{P} = u \left(v \mathbf{L}\mathbf{L} + (1 - v) \mathbf{U}\mathbf{L} \right) + (1 - u) \left(v \mathbf{L}\mathbf{R} + (1 - v) \mathbf{U}\mathbf{R} \right)$$