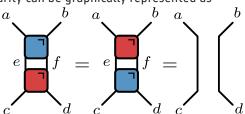
Unitary circuits

Consider time evolution generated by two-site unitary circuits



E.g.
$$U_{n,n+1} = \exp[-ih_{n,n+1}\Delta t]$$

Unitarity can be graphically represented as



$$\sum_{ef} U_{ab,ef} U_{ef,cd}^{\dagger} = \sum_{ef} U_{ab,ef}^{\dagger} U_{ef,cd} = \delta_{ac} \delta_{bd}$$

ı