

$$|\psi_{out}\rangle = \prod_{j \in O} X_j^{\oplus_{k \in L^X} s_k} Z_j^{\oplus_{k \in L^Z} s_k} \prod_{j \in N \setminus O} M_j(\delta) \prod_{(i,j) \in S} CZ_{ij} |\psi_{in}\rangle_I |+\rangle_{N \setminus I}$$