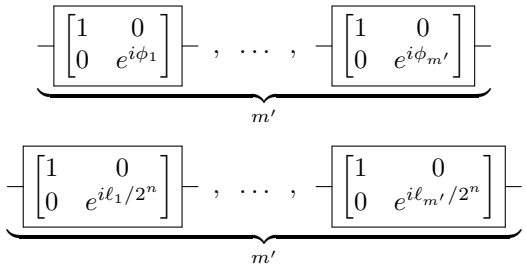
$\begin{bmatrix}1 & 0\\ 0 & e^{i\phi_1}\end{bmatrix}$, ⋯ , $\begin{bmatrix}1 & 0\\ 0 & e^{i\phi_{m'}}\end{bmatrix}$
m'
$\begin{bmatrix}1 & 0\\ 0 & e^{i\ell_1/2^n}\end{bmatrix}$, ⋯ , $\begin{bmatrix}1 & 0\\ 0 & e^{i\ell_{m'}/2^n}\end{bmatrix}$
m'
$\Upsilon(e^{2\pi i/2^n})$