

$$\begin{array}{cccccc}
\vdots & & \vdots & & \vdots & \\
\vdots & 0 & 0 & 0 & 0 & \\
\vdots & 0 & 0 & 0 & 0 & \\
\vdots & 0 & 0 & 0 & 0 & \\
\vdots & 0 & 0 & 0 & Z/(q^3-1)Z & \\
\vdots & 0 & 0 & Z/(q^4-1)Z & 0 & \bigoplus_{\ell \neq p} \\
\vdots & 0 & Z/(q^5-1)Z & 0 & \bigoplus_{\ell \neq p} (\text{Pic}(X_{\overline{F}_q} \otimes Z_\ell(4)))_\Gamma & \\
\vdots & \vdots & \vdots & \vdots & \vdots & 
\end{array}$$