

$$\begin{array}{ccccccc}
\vdots & \vdots & \vdots & \vdots & \vdots & \vdots & \vdots \\
\dots & 0 & 0 & 0 & 0 & 0 & \mathbb{Z} \\
\dots & 0 & 0 & 0 & 0 & 0 & \mathcal{O}^*(X) \\
\dots & 0 & 0 & 0 & 0 & \mathbb{Z}/(q^2-1)\mathbb{Z} & 0 \\
\dots & 0 & 0 & 0 & \mathbb{Z}/(q^3-1)\mathbb{Z} & 0 & \bigoplus_{\ell \neq p} (\mathrm{Pic}(X_{\overline{\mathbb{F}}_q} \otimes \mathbb{Z}_\ell(3)))_\Gamma \\
\dots & 0 & 0 & \mathbb{Z}/(q^4-1)\mathbb{Z} & 0 & \bigoplus_{\ell \neq p} (\mathrm{Pic}(X_{\overline{\mathbb{F}}_q} \otimes \mathbb{Z}_\ell(4)))_\Gamma & \mathbb{Z}/2\mathbb{Z} \\
\dots & 0 & \mathbb{Z}/(q^5-1)\mathbb{Z} & 0 & \mathbb{Z}/2\mathbb{Z} & \mathbb{Z}/(q^3-1)\mathbb{Z} &
\end{array}$$