

$$\begin{array}{ccccccccc}
 \dots & \longrightarrow & \hat{H}^0(G, U_L) & \longrightarrow & \hat{H}^0(G, L^*) & \xrightarrow{\sim} & \hat{H}^0(G, \mathbb{Z}) & \longrightarrow & \hat{H}^1(G, U_L) & \longrightarrow & \hat{H}^1(G, L^*) & \longrightarrow & \dots \\
 & & \parallel & & & & \parallel & & \parallel & & \parallel & & \\
 & & 0 & & & & \mathbb{Z}/n\mathbb{Z} & & 0 & & 0 & & 
 \end{array}$$