

$$\begin{array}{ccccccc}
X_i & \longrightarrow & Y_i & \longrightarrow & Z_i & \longrightarrow & X_i[1] \\
\downarrow & & \downarrow & & \downarrow & & \downarrow \\
\bigoplus X_i & \longrightarrow & \bigoplus Y_i & \longrightarrow & Z & \longrightarrow & \bigoplus X_i[1]
\end{array}$$