

$$\begin{array}{ccccccc}
H_{n+1}^{\Delta} \left( X^k, X^{k-1} \right) & \longrightarrow & H_n^{\Delta} \left( X^{k-1} \right) & \longrightarrow & H_n^{\Delta} \left( X^k \right) & \longrightarrow & H_n \left( X^k, X^{k-1} \right) \\
\parallel & & \parallel & & \downarrow & & \parallel \\
H_{n+1} \left( X^k, X^{k-1} \right) & \longrightarrow & H_n \left( X^{k-1} \right) & \longrightarrow & H_n \left( X^k \right) & \longrightarrow & H_n \left( X^k, X^{k-1} \right)
\end{array}$$