

$$\begin{array}{ccccc}
 & & \mathcal{I}(X) & & \\
 & \swarrow \phi_{PI} & \downarrow \phi_I & \nwarrow \phi_{IH} & \\
 \mathcal{P}(X) & & & & \mathcal{H}(X) \\
 & \xrightarrow{\phi_{PH}\phi_H} & & &
 \end{array}$$