

$$\begin{array}{ccccc}
 & & g_* \circ f_* & & \\
 & \searrow & & \nearrow & \\
 \pi(X, x) & \xrightarrow{f_*} & \pi(Y, f(x)) & \xrightarrow{g_*} & \pi(X, (g \circ f)(x)) \\
 & \searrow & & \swarrow & \\
 & & \mathbf{1}_{\pi(X, x)} & & \\
 & & & & u \\
 & & & & \swarrow \\
 & & & & \pi(X, x)
 \end{array}$$