

$$\begin{array}{ccc}
 & & \pi(Y, (g \circ f)(x)) \\
 & \nearrow^{g_* \circ f_*} & \downarrow u \\
 \pi(X, x) & & \\
 & \searrow_{\varphi_{1*}} & \\
 & & \pi(Y, \varphi_1(x_0))
 \end{array}$$