

$$\begin{array}{ccc} & & \pi_1(Y, f(x_0)) \\ & \nearrow f_* & \downarrow \cong \quad s_\tau \\ \pi_1(X, x_0) & & \\ & \searrow g_* & \downarrow \\ & & \pi_1(Y, g(x_0)) \end{array}$$