

$$\begin{array}{ccccc}
 \pi \mathcal{C} & \xleftarrow{\quad} & \pi(\mathcal{C} \cap \mathcal{F}) & \xrightarrow{\quad} & \pi \mathcal{F} \\
 \downarrow \overline{\gamma_{\mathcal{C}}} & & \downarrow \overline{\gamma} \cong & & \downarrow \overline{\gamma_{\mathcal{F}}} \\
 \mathrm{Ho}(\mathcal{C}) & \xrightarrow{\quad \cong \quad} & \mathrm{Ho}(\mathcal{A}) & \xleftarrow{\quad \cong \quad} & \mathrm{Ho}(\mathcal{F})
 \end{array}$$