

$$\begin{array}{ccccc}
 \pi\mathcal{C} & \xrightarrow{\overline{\gamma_c}} & \mathrm{Ho}(\mathcal{C}) & \xlongequal{\quad} & \mathcal{C}[\mathrm{TCofib}^{-1}] \\
 \uparrow & \swarrow \perp & \downarrow \simeq & & \\
 \pi(\mathcal{C} \cap \mathcal{F}) & \xrightarrow[\overline{\gamma}]{\simeq} & \mathrm{Ho}(\mathcal{A}) & \xlongequal{\quad} & \mathcal{C}[\mathrm{Weq}^{-1}] \\
 \downarrow & \nwarrow \perp & \uparrow \simeq & & \\
 \pi\mathcal{F} & \xrightarrow[\overline{\gamma_f}]{} & \mathrm{Ho}(\mathcal{F}) & \xlongequal{\quad} & \mathcal{F}[\mathrm{TFib}^{-1}]
 \end{array}$$