

$$\begin{array}{ccc}
 \mathcal{F}(U) & \xrightarrow{f_U} & \mathcal{G}(U) \\
 \rho_V^U \downarrow & & \downarrow \rho_V^U \\
 \mathcal{F}(V) & \xrightarrow{f_V} & \mathcal{G}(V)
 \end{array}$$