

$$\begin{array}{ccccc}
 \bullet & \xrightarrow{Lf} & \bullet & \overset{s_f}{\curvearrowright} \xrightarrow{LRf} & \bullet \\
 \downarrow f & \xrightarrow{\eta_f} & \downarrow Rf & \xrightarrow{\eta_{Rf}} & \downarrow RRf \\
 \bullet & \xrightarrow{\quad\quad\quad} & \bullet & \xrightarrow{\quad\quad\quad} & \bullet
 \end{array}$$