

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