

c_2 c_3

$$S[-1] \quad \quad \quad S[-1]$$

 r_1

$$\begin{array}{ccccccc} X & \xrightarrow{u} & Y & \xrightarrow{v} & W & \xrightarrow{w} & X[1] \\ & & \downarrow q & & \downarrow \alpha & & \\ & & & & & & \end{array}$$

 r_2

$$\begin{array}{ccccccc} X & \xrightarrow{x} & Z & \xrightarrow{y} & R & \xrightarrow{z} & X[1] \\ & & \downarrow & & \downarrow \beta & & \\ & & & & & & \end{array}$$

 \bullet

$$\begin{array}{ccccccc} & & \downarrow & & \downarrow \gamma & & \downarrow u[1] \\ & & S & \xlongequal{\quad} & S & \xrightarrow{-q[1]} & Y[1] \end{array}$$