

PROOF.

$$\begin{aligned}
S^*(S^*(f)) &= \\
\sqcap \left\{ \frac{\uparrow^{\text{RLD}} S(R)}{R \in \text{xyGR } S^*(f)} \right\} &\sqsubseteq \\
\sqcap \left\{ \frac{\uparrow^{\text{RLD}} S(R)}{R \in \left\{ \frac{S(F)}{F \in \text{xyGR } f} \right\}} \right\} &= \\
\sqcap \left\{ \frac{\uparrow^{\text{RLD}} S(S(R))}{R \in \text{xyGR } S^*(f)} \right\} &= \\
\sqcap \left\{ \frac{\uparrow^{\text{RLD}} S(R)}{R \in \text{xyGR } S^*(f)} \right\} &= \\
S^*(f). &
\end{aligned}$$

So $S^*(S^*(f)) \sqsubseteq S^*(f)$. That $S^*(S^*(f)) \supseteq S^*(f)$ is obvious. \square

COROLLARY 908. $S^*(S(f)) = S(S^*(f)) = S^*(f)$ for every endoreloid f .

PROOF. Obviously $S^*(S(f)) \supseteq S^*(f)$ and $S(S^*(f)) \supseteq S^*(f)$.

But $S^*(S(f)) \sqsubseteq S^*(S^*(f)) = S^*(f)$ and $S(S^*(f)) \sqsubseteq S^*(S^*(f)) = S^*(f)$. \square

CONJECTURE 909. $S(S(f)) = S(f)$ for

- 1°. every endoreloid f ;
- 2°. every endofuncoïd f .

CONJECTURE 910. For every endoreloid f

- 1°. $S(f) \circ S(f) = S(f)$;
- 2°. $S^*(f) \circ S^*(f) = S^*(f)$;
- 3°. $S(f) \circ S^*(f) = S^*(f) \circ S(f) = S^*(f)$.

CONJECTURE 911. $S(f) \circ S(f) = S(f)$ for every endofuncoïd f .