0.1 — 3 nodi chiuso

$$
\begin{aligned}
\langle \dot{S_1} \rangle &= -\tau \langle S_1 I_2 \rangle, \\
\langle \dot{I_1} \rangle &= \tau \langle S_1 I_2 \rangle - \gamma \langle I_1 \rangle, \\
\langle \dot{S_2} \rangle &= -\tau \left(\langle I_1 S_2 \rangle + \langle S_2 I_3 \rangle \right), \\
\langle \dot{I_2} \rangle &= \tau \left(\langle I_1 S_2 \rangle + \langle S_2 I_3 \rangle \right) - \gamma \langle I_2 \rangle \\
\langle \dot{S_3} \rangle &= -\tau \langle I_2 S_3 \rangle, \\
\langle \dot{I_3} \rangle &= \tau \langle I_2 S_3 \rangle - \gamma \langle I_3 \rangle, \\
\langle \dot{S_1 I_2} \rangle &= \tau \langle S_1 S_2 I_3 \rangle - (\tau + \gamma) \langle S_1 I_2 \rangle, \\
\langle \dot{I_1 S_2} \rangle &= -\tau \langle I_1 S_2 I_3 \rangle - (\tau + \gamma) \langle I_1 S_2 \rangle, \\
\langle \dot{S_2 I_3} \rangle &= -\tau \langle I_1 S_2 I_3 \rangle - (\tau + \gamma) \langle S_2 I_3 \rangle, \\
\langle \dot{I_2 S_3} \rangle &= \tau \langle I_1 S_2 S_3 \rangle - (\tau + \gamma) \langle I_2 S_3 \rangle \\
\langle \dot{S_1 S_2 I_3} \rangle &= -(\tau + \gamma) \langle S_1 S_2 I_3 \rangle, \\
\langle \dot{I_1 S_2 I_3} \rangle &= -(2\tau + 2\gamma) \langle I_1 S_2 I_3 \rangle, \\
\langle \dot{I_1 S_2 S_3} \rangle &= -(\tau + \gamma) \langle I_1 S_2 S_3 \rangle.
\end{aligned}
$$

0.2 — 3 nodi cut-vertex

$$
\begin{aligned}
\langle \dot{S_1} \rangle &= -\tau \langle S_1 I_2 \rangle, \\
\langle \dot{I_1} \rangle &= \tau \langle S_1 I_2 \rangle - \gamma \langle I_1 \rangle, \\
\langle \dot{S_2} \rangle &= -\tau \left(\langle I_1 S_2 \rangle + \langle S_2 I_3 \rangle \right), \\
\langle \dot{I_2} \rangle &= \tau \left(\langle I_1 S_2 \rangle + \langle S_2 I_3 \rangle \right) - \gamma \langle I_2 \rangle \\
\langle \dot{S_3} \rangle &= -\tau \langle I_2 S_3 \rangle, \\
\langle \dot{I_3} \rangle &= \tau \langle I_2 S_3 \rangle - \gamma \langle I_3 \rangle, \\
\langle \dot{S_1 I_2} \rangle &= \tau \frac{\langle S_1 S_2 \rangle \langle S_2 I_3 \rangle}{\langle S_2 \rangle} - (\tau + \gamma) \langle S_1 I_2 \rangle, \\
\langle \dot{I_1 S_2} \rangle &= -\tau \frac{\langle I_1 S_2 \rangle \langle S_2 I_3 \rangle}{\langle S_2 \rangle} - (\tau + \gamma) \langle I_1 S_2 \rangle, \\
\langle \dot{S_2 I_3} \rangle &= -\tau \frac{\langle I_1 S_2 \rangle \langle S_2 I_3 \rangle}{\langle S_2 \rangle} - (\tau + \gamma) \langle S_2 I_3 \rangle, \\
\langle \dot{I_2 S_3} \rangle &= \tau \frac{\langle I_1 S_2 \rangle \langle S_2 S_3 \rangle}{\langle S_2 \rangle} - (\tau + \gamma) \langle I_2 S_3 \rangle \\
\langle \dot{S_1 S_2} \rangle &= -\tau \frac{\langle S_1 S_2 \rangle \langle S_2 I_3 \rangle}{\langle S_2 \rangle} \\
\langle \dot{S_2 S_3} \rangle &= -\tau \frac{\langle I_1 S_2 \rangle \langle S_2 S_3 \rangle}{\langle S_2 \rangle},
\end{aligned}
$$