

$$\begin{aligned}
& \int_0^t c_u \lambda_u \left(1 + c_u \lambda_u \frac{e^{s c_\lambda} - 1}{c_\lambda} \right)^{-1} \mathbf{E}^{s c_\lambda} d\mathbf{s} \\
& -\text{Log}[c_\lambda] + \text{Log}[c_\lambda + (-1 + e^{t c_\lambda}) c_u \lambda_u] \\
& \int_0^1 c_u \lambda_u \left(1 + c_u \lambda_u \frac{e^{s c_\lambda} - 1}{c_\lambda} \right)^{-1} \mathbf{E}^{s c_\lambda} d\mathbf{s} \\
& -\text{Log}[c_\lambda] + \text{Log}[c_\lambda + (-1 + e^{c_\lambda}) c_u \lambda_u]
\end{aligned}$$