the bias for the linear reservoir after introducing Eq. (4) and assuming that the derivative of flow is calculated in the center of the time interval $\Delta t$ yields:

$$
\Theta = 1 - \frac{Q_0 e^{-a(t+\Delta t)} - Q_0 e^{-at}}{\Delta t} - aQ_0 e^{-a(t+\frac{\Delta t}{2})} = 1 + \frac{e^{-c} - 1}{ce^{-\frac{c}{2}}}
$$

where $c = a \cdot \Delta t$. 

\[
\Theta = \frac{dQ}{dt} \frac{\Delta Q}{\Delta t}
\] (7)