$$\Theta = \frac{\frac{dQ}{dt} - \frac{\Delta Q}{\Delta t}}{\frac{dQ}{dt}} \tag{7}$$

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 Δt yields:

$$\Theta = 1 - \frac{\frac{Q_0 e^{-a(t+\Delta t)} - Q_0 e^{-at}}{\Delta t}}{-aQ_0 e^{-a\left(t+\frac{\Delta t}{2}\right)}} = 1 + \frac{e^{-c}-1}{c \cdot e^{-\frac{c}{2}}} \tag{8}$$

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