**Repressilator ODEs**

$\frac{d[G_\lambda]}{dt} = k_{-1}[g_\lambda] - k_1[T][G_\lambda]$

$\frac{d[g_\lambda]}{dt} = -\frac{d[G_\lambda]}{dt}$

$\frac{d[r_\lambda]}{dt} = k_2[G_\lambda] - k_3[r_\lambda]$

$\frac{d[\lambda]}{dt} = k_4[r_\lambda] - k_5[\lambda] + k_{-6}[g_L] - k_6[\lambda][G_L] = k_4[r_\lambda] - k_5[\lambda] + \frac{d[G_L]}{dt}$

$\frac{d[G_L]}{dt} = k_{-6}[g_L] - k_6[\lambda][G_L]$

$\frac{d[g_L]}{dt} = -\frac{d[G_L]}{dt}$

$\frac{d[r_L]}{dt} = k_7[G_L] - k_8[r_L]$

$\frac{d[\lambda]}{dt} = k_9[r_L] - k_{10}[T] + k_{-11}[g_T] - k_{11}[L][G_T] = k_9[r_L] - k_{10}[T] + \frac{d[G_T]}{dt}$

$\frac{d[G_T]}{dt} = k_{-11}[g_T] - k_{11}[L][G_T]$

$\frac{d[g_T]}{dt} = -\frac{d[G_T]}{dt}$

$\frac{d[r_T]}{dt} = k_{12}[G_T] - k_{13}[r_T]$

$\frac{d[T]}{dt} = k_{14}[r_T] - k_{15}[T] + k_{-1}[g_\lambda] - k_1[T][G_\lambda] + k_{-16}[g_F] - k_{16}[T][G_F] = k_{14}[r_L] - k_{15}[T] + \frac{d[G_T]}{dt} + \frac{d[G_F]}{dt}$

$\frac{d[G_F]}{dt} = k_{-16}[g_F] - k_{16}[T][G_F]$

$\frac{d[g_F]}{dt} = -\frac{d[G_F]}{dt}$

$\frac{d[r_F]}{dt} = k_{17}[G_F] - k_{18}[r_F]$

$\frac{d[F]}{dt} = k_{19}[r_L] - k_{20}[T]$