

$$\frac{d^2 g}{d \ln(1+z)^2} - \left[\frac{5}{2} + \frac{1}{2} (\Omega_k(z) - 3w(z)\Omega_{\text{de}}(z)) \right] \frac{dg}{d \ln(1+z)} + \left[2\Omega_k(z) + \frac{3}{2} (1 - w(z))\Omega_{\text{de}}(z) \right] g(z) = 0$$