

$$S_{ID} g = \sqrt{\frac{2 \gamma \left(\cosh \left[\frac{\hbar}{2} \sqrt{t^2 + \gamma^2 \epsilon^2 + 4 \epsilon \varpi} \right] - \cosh \left[\frac{t - \epsilon \gamma - 2 \epsilon a}{2 / \hbar} \right] \right)}{\sinh \left[\frac{\gamma \epsilon \hbar}{2} \right] (t (2a + \gamma) - 2a (a + \gamma) \epsilon + 2 \varpi) \hbar}} ;$$