



$$\mathbf{f}_{\text{I}} = \frac{\sin \Delta\theta}{\Delta\theta} \left(\frac{1 - \sin^2 \left(\frac{\Delta\theta}{2} \right) \cos^2 \left(\frac{\Delta\theta}{2} \right)}{1 + \sin^2 \left(\frac{\Delta\theta}{2} \right)} \cos \left(\frac{\Delta\theta}{2} \right) + \cos \left(\frac{3}{2} \Delta\theta \right) \right)^2$$

$$\mathbf{f}_{\text{II}} = -\frac{\sin \Delta\theta}{\Delta\theta} \left(\frac{1 - \sin^2 \left(\frac{\Delta\theta}{2} \right) \cos^2 \left(\frac{\Delta\theta}{2} \right)}{1 + \sin^2 \left(\frac{\Delta\theta}{2} \right)} \sin \left(\frac{\Delta\theta}{2} \right) + \sin \left(\frac{3}{2} \Delta\theta \right) \right)^2$$