



Figure 1.3. The combined effect of discretization and roundoff errors. The solid curve interpolates the computed values of $|f'(x_0) - \frac{f(x_0+h)-f(x_0)}{h}|$ for $f(x) = \sin(x)$, $x_0 = 1.2$. Also shown in dash-dot style is a straight line depicting the discretization error without roundoff error.