


Numerical Algorithms and Errors

1.4 Condition and Stability

$$\begin{aligned} f(x) &= x + a \\ \text{Relative Error} \leftarrow \kappa_{rel} &= \left| \frac{f'(x) \cdot x}{f(x)} \right| \\ &= \left| \frac{x}{x+a} \right| \\ |x+a| &\ll x \end{aligned}$$