

title: A frequent inequality date: 2015-09-09 tags: stats, pdf, math

$$\frac{x-1}{x} \leq \ln(x) \leq x-1 \forall x > 0$$

Consider $f(x) = \ln(x) - \frac{x-1}{x}$

$$f'(x) = \frac{1}{x} - \frac{1}{x^2}$$