Hello, world! LaTeX can typeset equations like

$$\int_0^{2\pi} \sin^2 \theta \int_-^T T d\theta = \frac{1}{2} \tag{1}$$

$$\left[\mathbf{X} + \mathrm{a} \ \geq \ \hat{\underline{a}} \sum_i^N \lim_{x \to k} \delta C \right] \tag{2}$$

very cool!