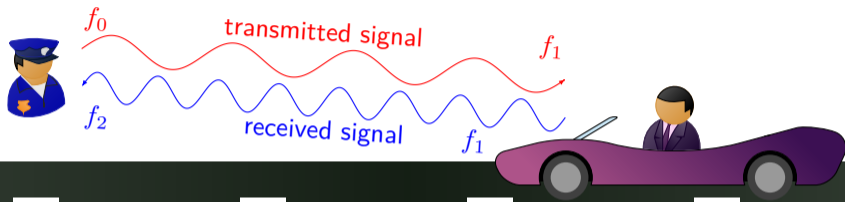


## The Doppler Effect



$$\text{Transmission: } f_1 = \frac{c + v}{c} f_0$$

$$\text{Reception: } f_2 = \frac{c}{c - v} f_1 = \frac{c + v}{c - v} f_0$$

$$\text{Speed detected: } v = \frac{f_2 - f_0}{f_2 + f_0} c$$