

WC 6

$$\vec{r} = (x, y) = (vt, A \sin \omega t) \quad v \ll c$$

$$\omega = 2\pi v = 2\pi \frac{v}{\lambda}$$

$$x = vt$$

$$\dot{x} = v$$

$$\ddot{x} = 0$$

$$y = A \sin \omega t$$

$$\dot{y} = A \cos \omega t \cdot \omega$$

$$\ddot{y} = -A \omega^2 \sin \omega t = -\omega^2 y = -\left(\frac{2\pi v}{\lambda}\right)^2 y$$

$$P = \frac{2q^2 \dot{y}^2}{3c^3} = \frac{2e^2 \dot{y}^2}{3c^3} = \frac{2e^2}{3c^3} (A \omega^2 \sin \omega t)^2$$

