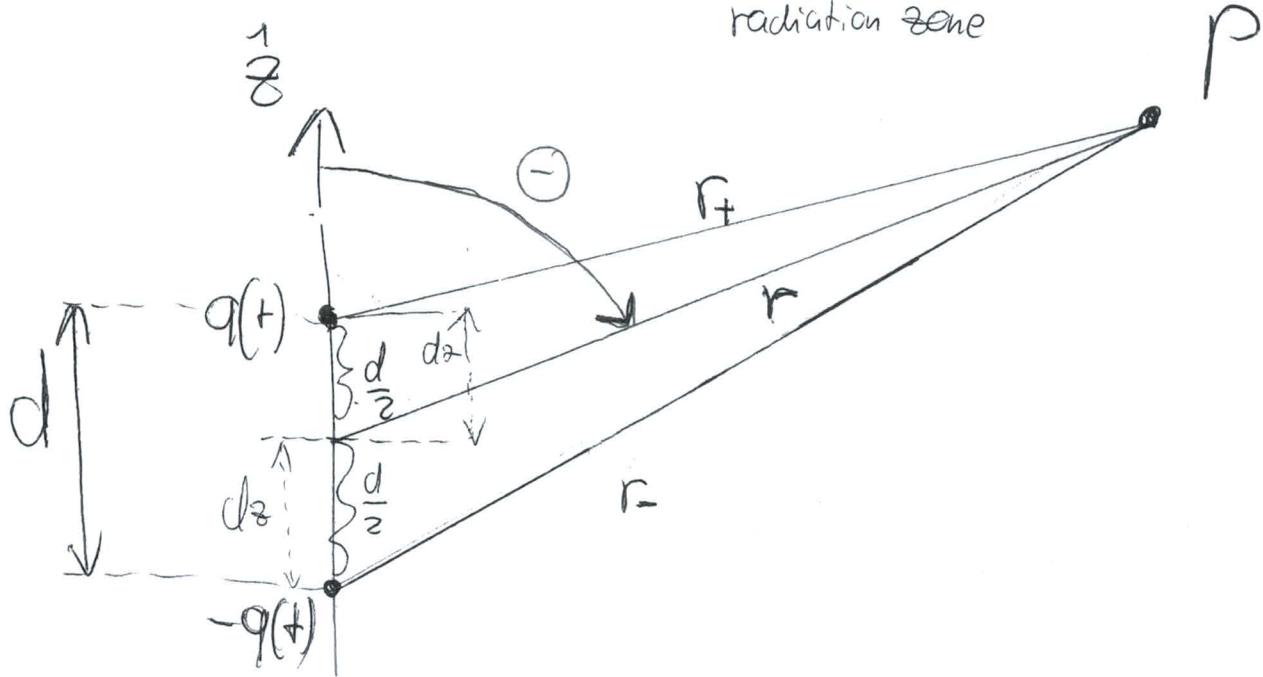


Vector Potential \vec{A} in $d \ll \frac{w}{c} = \frac{\lambda}{2\pi} \ll r$ (1)



$$d \ll \frac{w}{c} = \frac{\lambda}{2\pi} \ll r$$

$$\begin{aligned}\vec{J}(t) &= \frac{dq(t)\vec{z}}{dt} = \frac{d}{dt} q_0 \cos(\omega t) \vec{z} \\ &= -q_0 \omega \sin(\omega t) \vec{z}\end{aligned}$$

differential current along \vec{z}

$\partial \vec{J}/\partial z \rightarrow$ loop voltage and

field phasor analysis

