TEMA 6 PROB. 12

Timpo retardado
$$\pm$$
 para el panto P ($x=g+v\pm 1$)

 $x_1 \times x_2 \Rightarrow y_1$
 $x_1 \times x_2 \Rightarrow y_2$
 $x_2 \times y_3 \times y_4$
 $x_1 \times x_2 \Rightarrow y_4$
 $x_2 \times y_4 \times y_5 \times y_6$
 $x_1 \times x_2 \Rightarrow y_6$
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$$\pm' = \pm - \frac{\sigma \pm + 5}{c}$$

$$0 \le 5 \le 2$$

$$2 \pm' = c \pm - 5$$

$$(c+\sigma) \pm' = c \pm - 5$$

$$1 + \frac{5}{c}$$

$$ct' = ct - \sigma t' - S$$

$$(c+v)t' = ct - S \longrightarrow t' = \frac{t' - \frac{s}{c}}{1 + \frac{\sigma}{c}}$$

$$vt - \frac{\sigma}{c}$$

$$ct' = ct - \sigma t' - s$$

$$(c+v) t' = ct - s - t' = t - \frac{s}{s}$$

$$vt' + s = \frac{vt - vs}{1 + v}$$

$$vt' + s = \frac{vt - vs}{1 + v}$$

$$X = \frac{1 + \frac{1}{\sqrt{2}}}{1 + \frac{1}{\sqrt{2}}}$$

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$$x = \frac{\sigma t + \xi}{1 + \frac{\zeta}{\xi}} \rightarrow dx = \frac{d\xi}{1 + \frac{\zeta}{\xi}}$$

$$\sigma_1 t J = \frac{\lambda}{4\pi\xi} \int_{-\frac{\zeta}{\chi'}}^{\frac{\chi_2}{\chi'}} d\xi \int_{-\frac{\zeta}{\chi'}}^{\frac{\chi_2}{\chi'}} d\xi$$

$$= \frac{\lambda}{4\pi\epsilon} \int_{0}^{\infty} \frac{ds}{\sigma t + \epsilon} = \frac{\lambda}{4\pi\epsilon} \ln \left(\frac{\sigma t + L}{\sigma t}\right)$$

$$= \frac{\lambda}{4\pi\epsilon} \int_{0}^{L} \frac{d\epsilon}{\sigma t + \epsilon} = \frac{\lambda}{4\pi\epsilon}$$

$$= \frac{\lambda}{4\pi\epsilon} \ln \left(1 + \frac{L}{\sigma t}\right)$$

$$= \frac{\lambda}{4\pi\epsilon} \int_{0}^{L} \frac{d\epsilon}{\sigma t + \epsilon} d\epsilon$$

$$= \frac{\lambda}{4\pi\epsilon} \ln \left(1 + \frac{1}{2} + \frac$$

Tiempo retardado
$$\pm \frac{z}{1+\frac{z}{c}}$$
Tiempo retardado

El tiempo retardado es menor para
$$\xi = L(x_2)$$

que para $\xi = O(x_1)$. Si despejamos \pm :

0 5 5 5 6 7

 $(1+\frac{1}{c}) \pm = \pm -\frac{5}{c} \Rightarrow \pm = (1+\frac{1}{c}) \pm (+\frac{5}{c})$ En el instante \pm contribuje \times en \pm \frac{1}{3} \times \tim

En el instante
$$\pm$$
 contribuje \times_1 en \pm_1 y \times_2 en \pm_2 :
$$\pm = (1 + \frac{U}{C}) \pm_1 \qquad [S = 0 (\times_1)]$$

$$\pm = (1 + \frac{U}{C}) \pm_2 + \frac{L}{C} [S = L(\times_2)]$$

$$\pm 2 + \frac{1}{1+\sqrt{1/c}} = \pm 2 + \frac{1}{1+\sqrt{1/c}}$$

$$\pm \frac{1}{1+\sqrt{1/c}} = \pm \frac{1}{2} + \frac{1}{1+\sqrt{1/c}} = \pm \frac{1}{$$