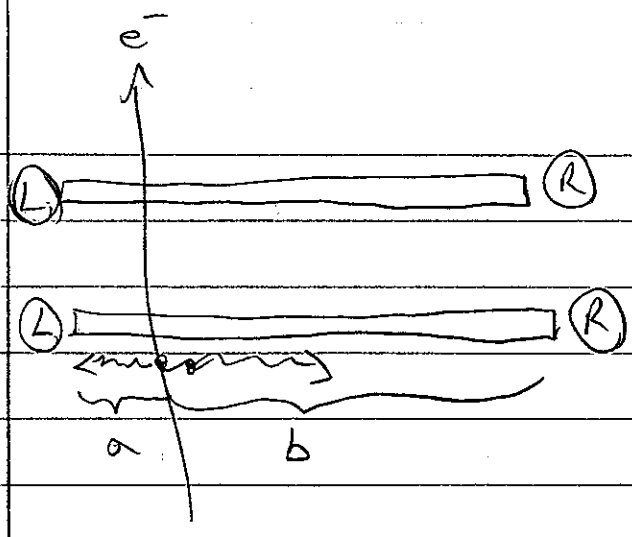

t_0 = "physics" time when e^- intersects w/ $\leq 2m$ plane
↳ we can set this to zero

$T_L = t_0 + a$
$T_R = t_0 + b$
} note $\tau \equiv a + b = n° \frac{L_{bar}}{c} = \text{constant}$

$T_{trig} = T_R + c$ ← cable delay, etc

$TDC_L = (T_L + d) - (T_{trig} + e) = T_L - T_R + d - c - e$
$= \tau - 2b + \text{const}$ ← $b : \{0, \tau\}$

$TDC_R = (T_R + f) - (T_{trig} + e) = \cancel{T_R} - \cancel{T_R} + f - c - e$
constant → self-timing

$TDC_L - TDC_R = T_L - T_R + d - f = \cancel{t_0} + a - \cancel{t_0} - b + d - f$
$= a - b + d - f = \tau - 2b + d - f$ $b : \{0, \tau\}$

$TDC_L + TDC_R = \tau - 2b + d - c - e + f - c - e$
$= \tau - 2b + \text{const}$
↳ $b : \{0, \tau\}$

same distribution as TDC_L