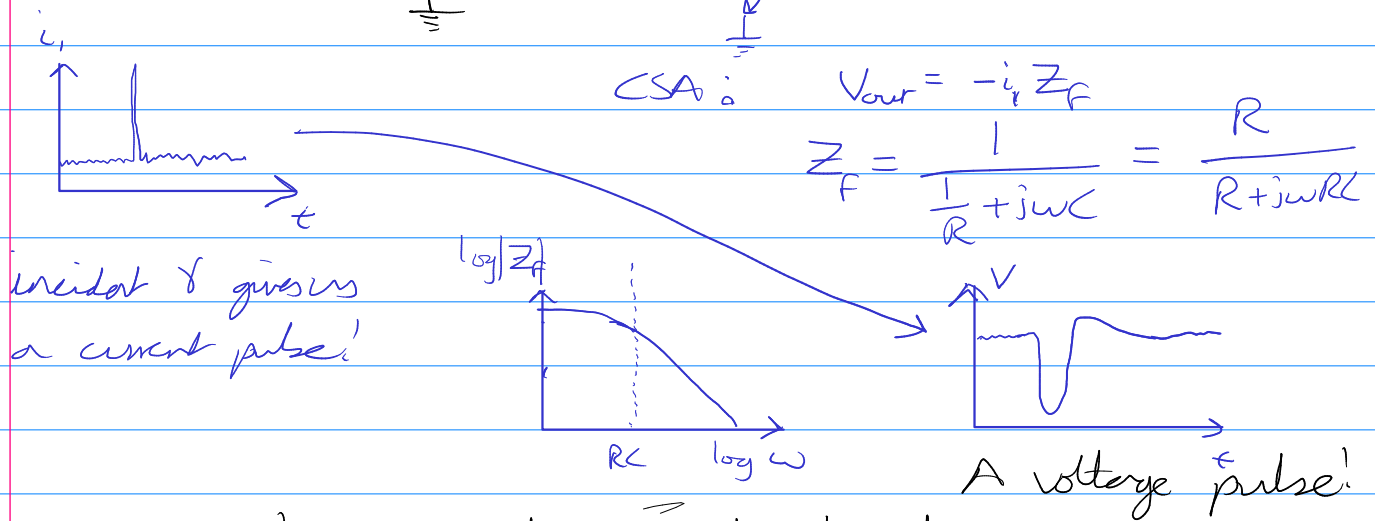
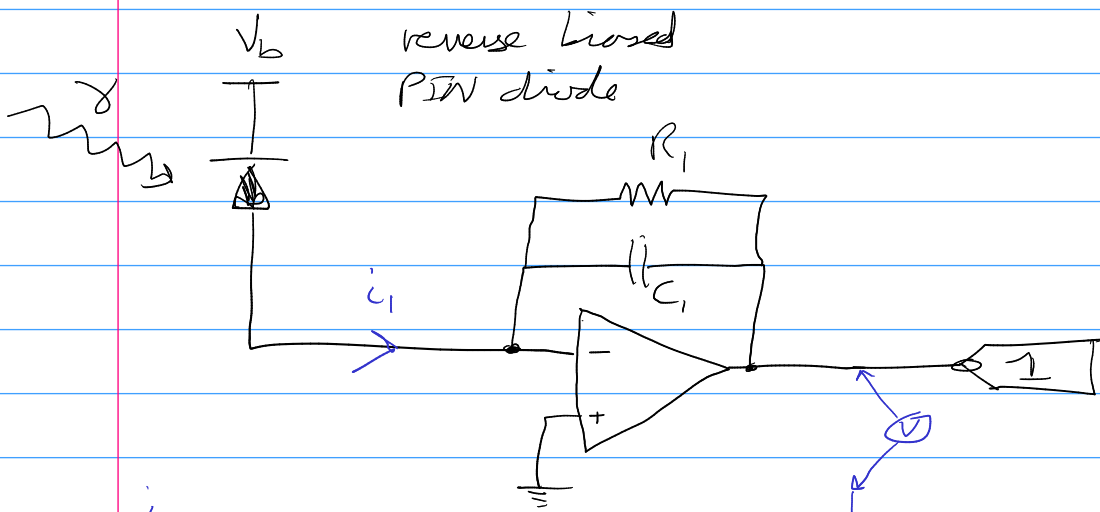
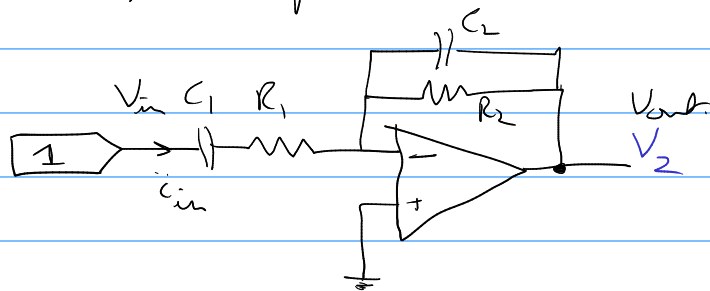


# $\gamma$ / cosmic ray detector - concept -



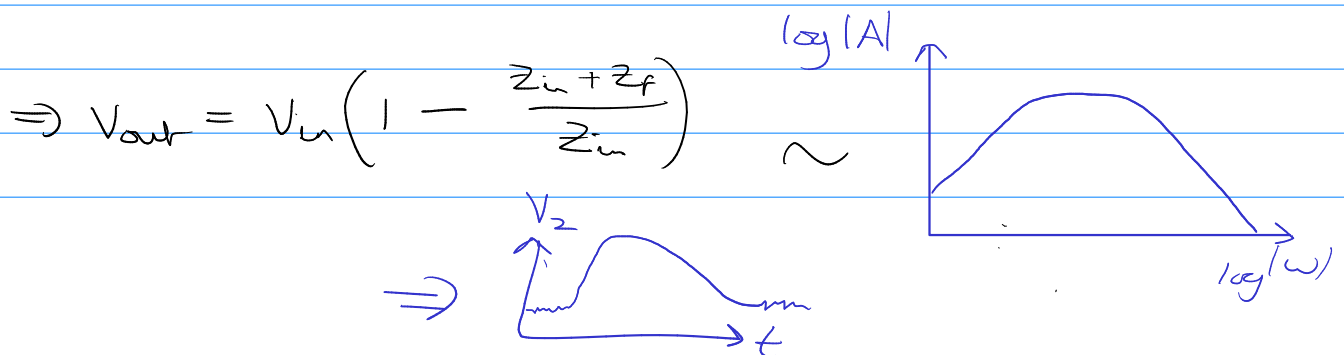
Now, shape pulse with band pass



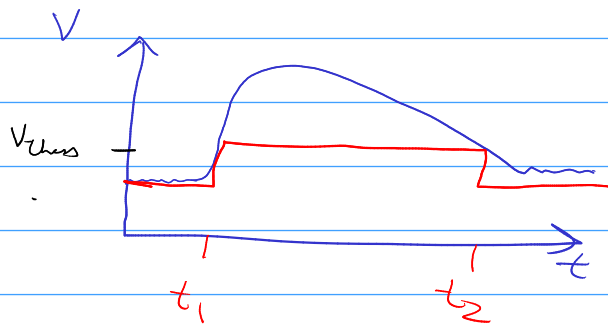
also:  $V_{in} - i_{in} Z_{in} = 0$   
 $\Rightarrow i_{in} = \frac{V_{in}}{Z_{in}}$

$$V_{out} = V_{in} - i_{in}(Z_{in} + Z_F)$$

$$Z_{in} = \frac{1}{j\omega C_1} + R_1, \quad Z_F = \frac{R_2}{1 + j\omega R_2 C_2}$$

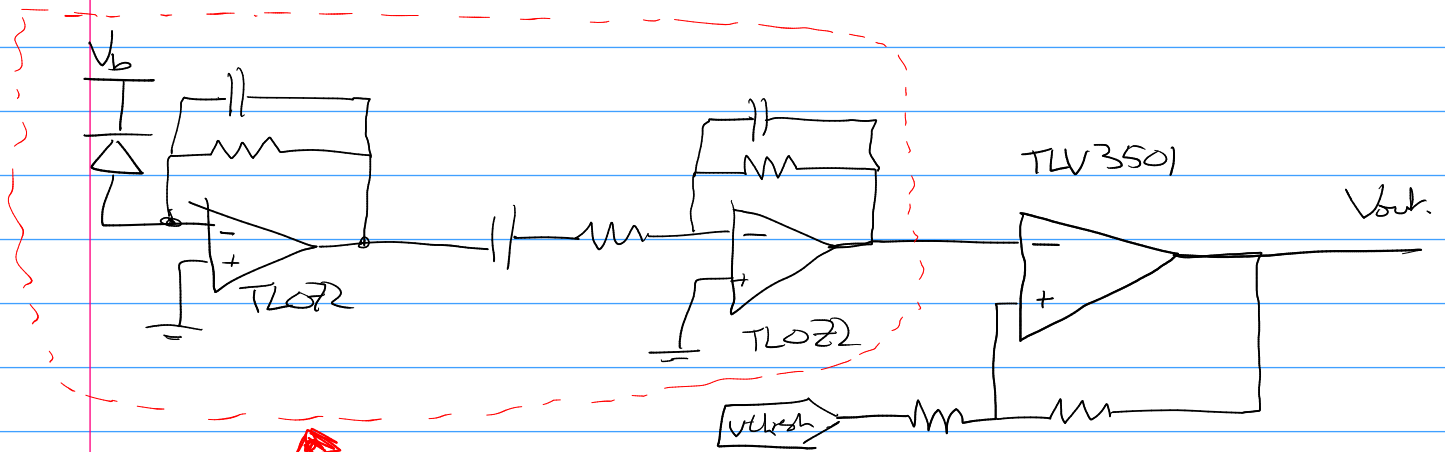


take this pulse & apply threshold!



$t_1 - t_2$  gives  
~ charge deposited  
by original  $\gamma$ !

# Schematic



Draw this part in KiCad!