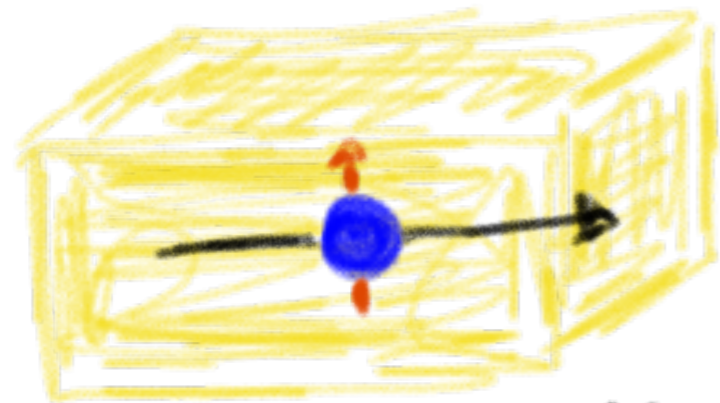


SOME DISCUSSION OF THESE



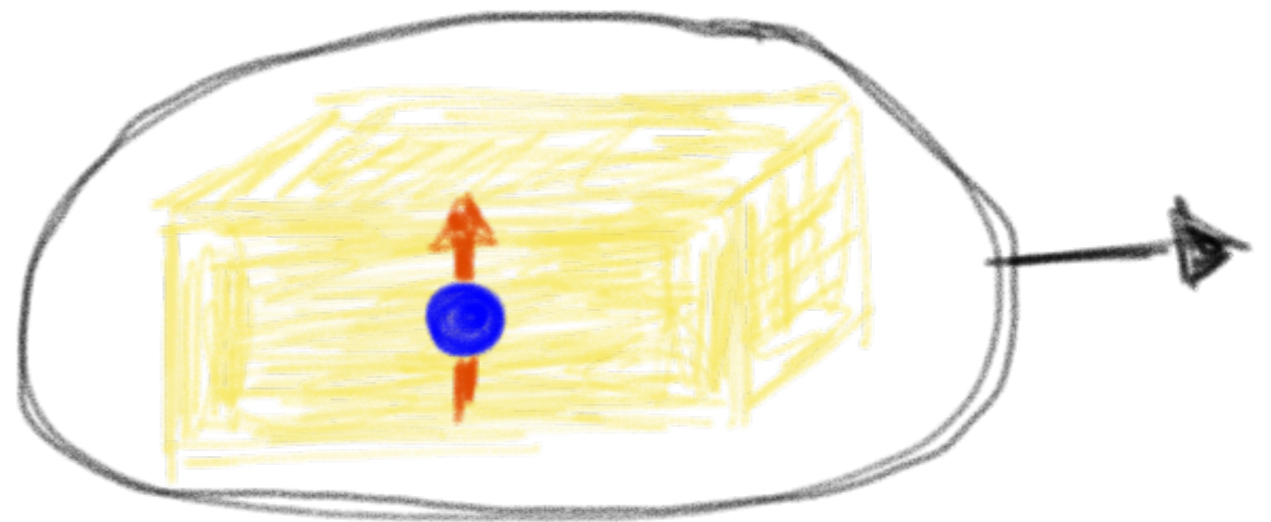
STATIONARY CAVITY  
ACCELERATED DETECTOR

SOME DISCUSSION OF THESE



STATIONARY CAVITY  
ACCELERATED DETECTOR

NOT MUCH ABOUT THESE



CO-ACCELERATING  
DETECTOR AND CAVITY

# SIMPLE MODEL



DETECTOR IS COUPLED  
TO A  $(+1)$  DIMENSIONAL  
SCALAR FIELD

# SIMPLE MODEL



DETECTOR IS COUPLED  
TO A  $(+1)$  DIMENSIONAL  
SCALAR FIELD

INTERACTION HAMILTONIAN

$$\hat{H}_I(\tau) \propto \epsilon(\tau) \hat{\phi}(x(\tau)) \left( e^{-i\omega\tau} \hat{d} + e^{i\omega\tau} \hat{d}^\dagger \right)$$

# SIMPLE MODEL



DETECTOR IS COUPLED  
TO A  $1+1$  DIMENSIONAL  
SCALAR FIELD

INTERACTION HAMILTONIAN

$$\hat{H}_I(\tau) \propto \epsilon(\tau) \hat{\phi}(x(\tau)) \left( e^{-i\omega\tau} \hat{d} + e^{i\omega\tau} \hat{d}^\dagger \right)$$

TRANSITION PROBABILITIES MODELLED BY KGE

$$(\square + m^2) \hat{\phi}(x, t) = 0$$

# SIMPLE MODEL



FIRST ORDER PROBABILITY AMPLITUDE

$$A_{\psi} = -i \int_{-\infty}^{\infty} d\tau \langle g | \langle \psi | \hat{H}_I(\tau) | e \rangle | 0 \rangle$$

# SIMPLE MODEL



FIRST ORDER PROBABILITY AMPLITUDE

$$A_{\psi} = -i \int_{-\infty}^{\infty} d\tau \langle g | \langle \psi | \hat{H}_I(\tau) | e \rangle | 0 \rangle$$

TOTAL PROBABILITY

$$\mathcal{P} = \sum_{\psi} |A_{\psi}|^2$$

# SYSTEM AT REST



CONSIDER A DETECTOR AT REST