

# Simulations in BONuS experiment

Aruni Nadeeshani  
Hampton University  
Advisor: Dr. M.E. Christy

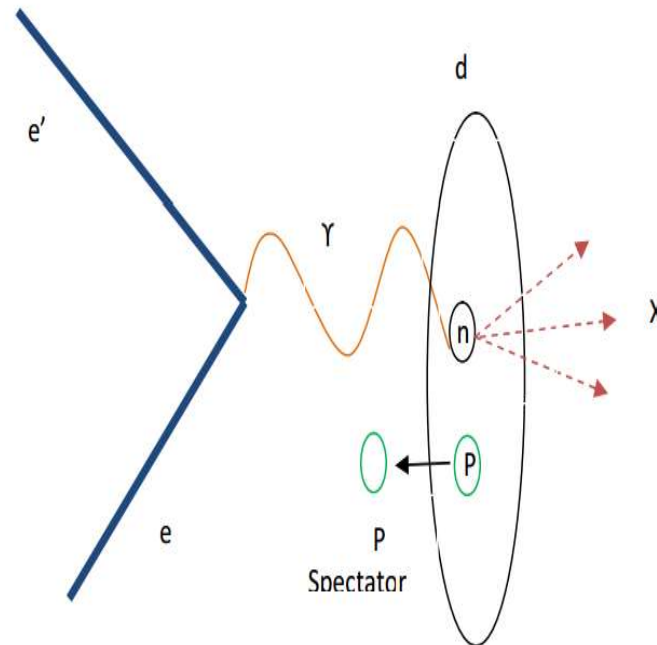
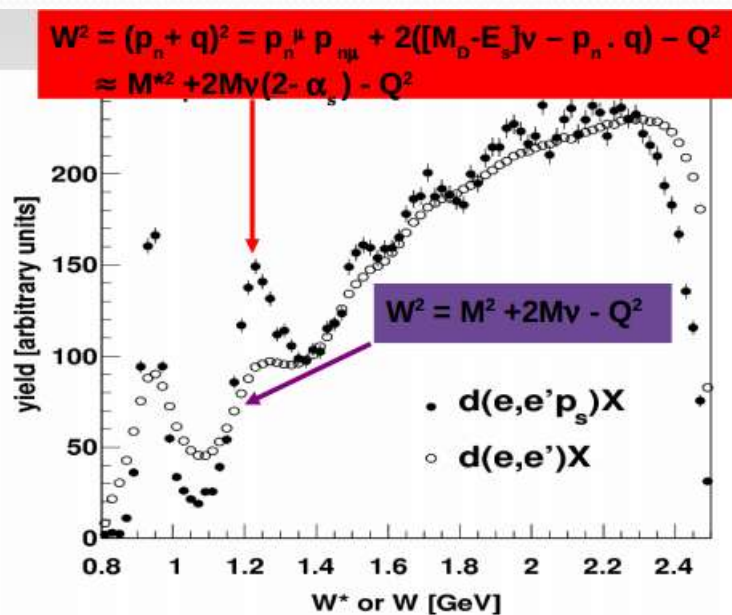


# Out Line

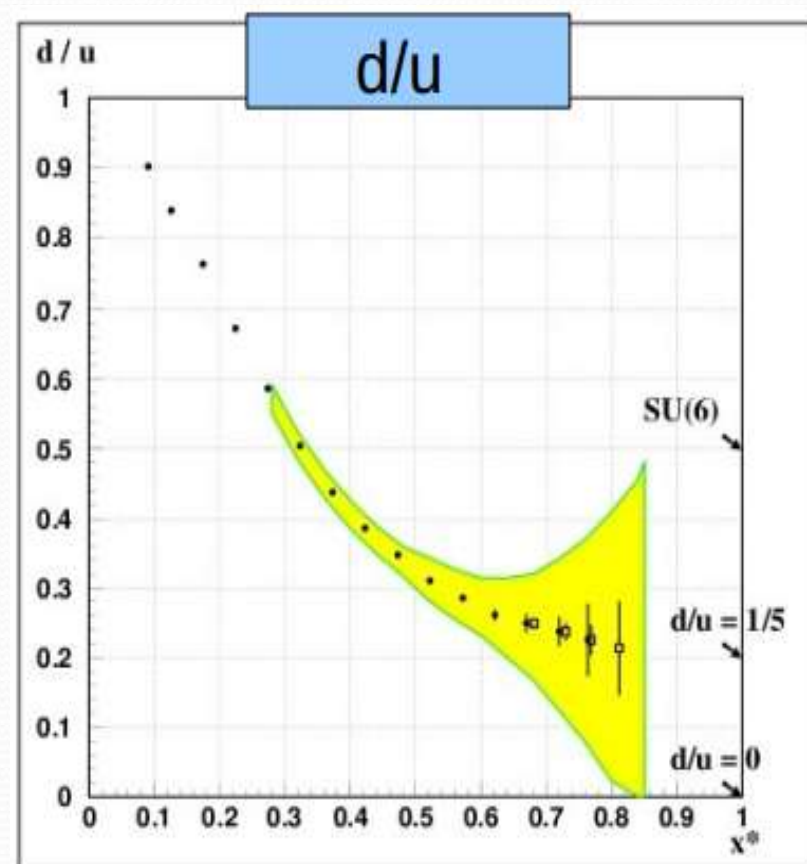
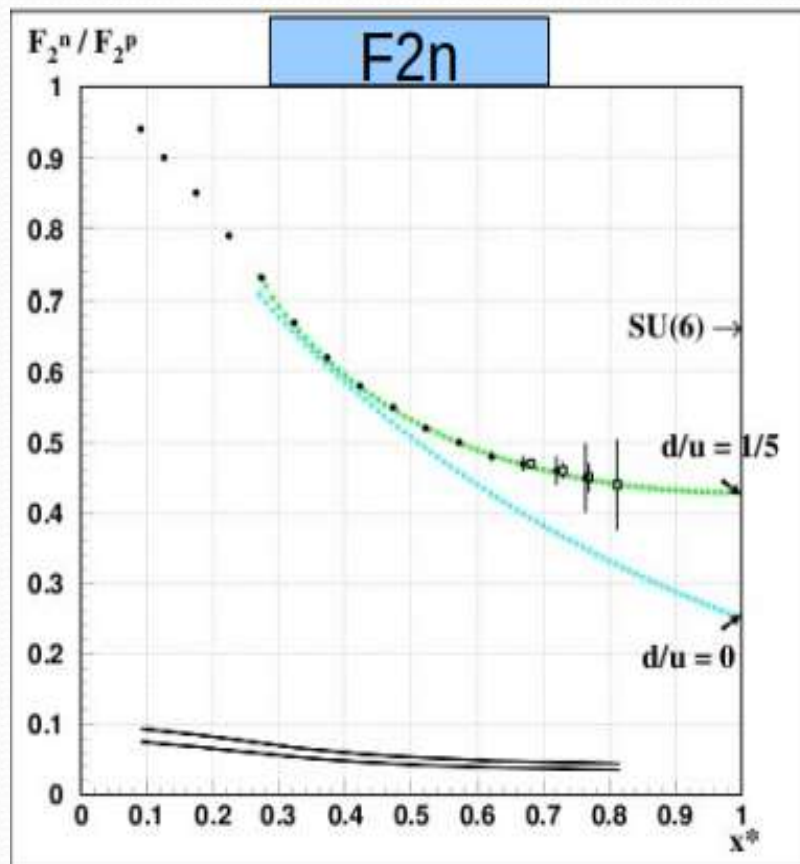
- BONuS experiment
- Electric Field calculations
- Future goals

# BONuS experiment

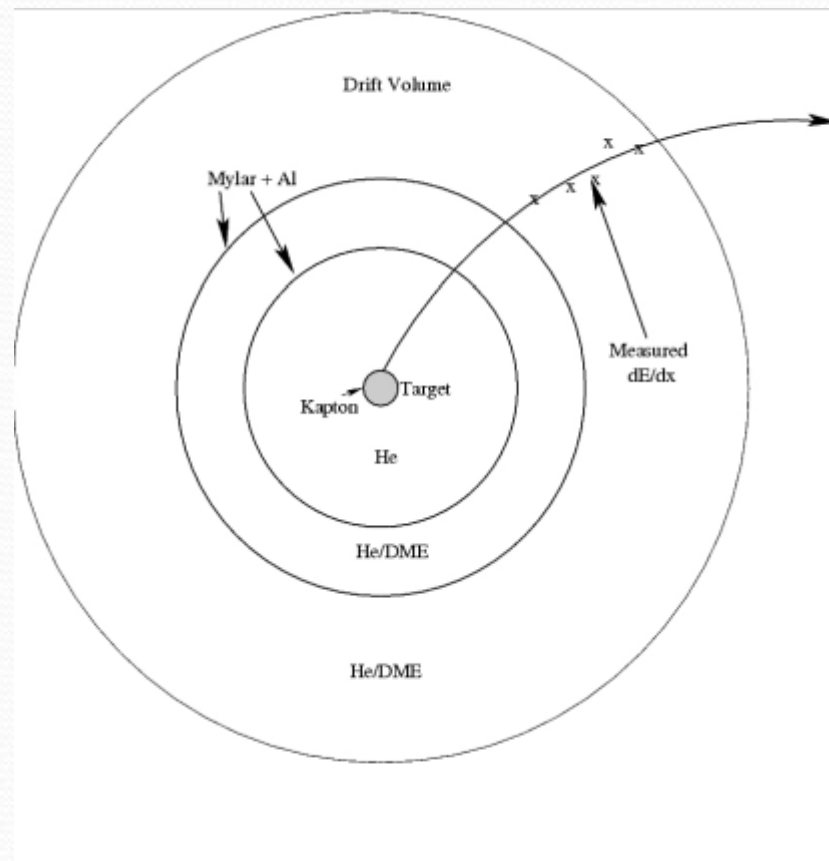
- BONuS-> **B**arely **O**ff-shell **N**eutron **S**tructure
- Deuterium target
- $d(e, e' p_s) X$



# Expected observables in BONuS 12

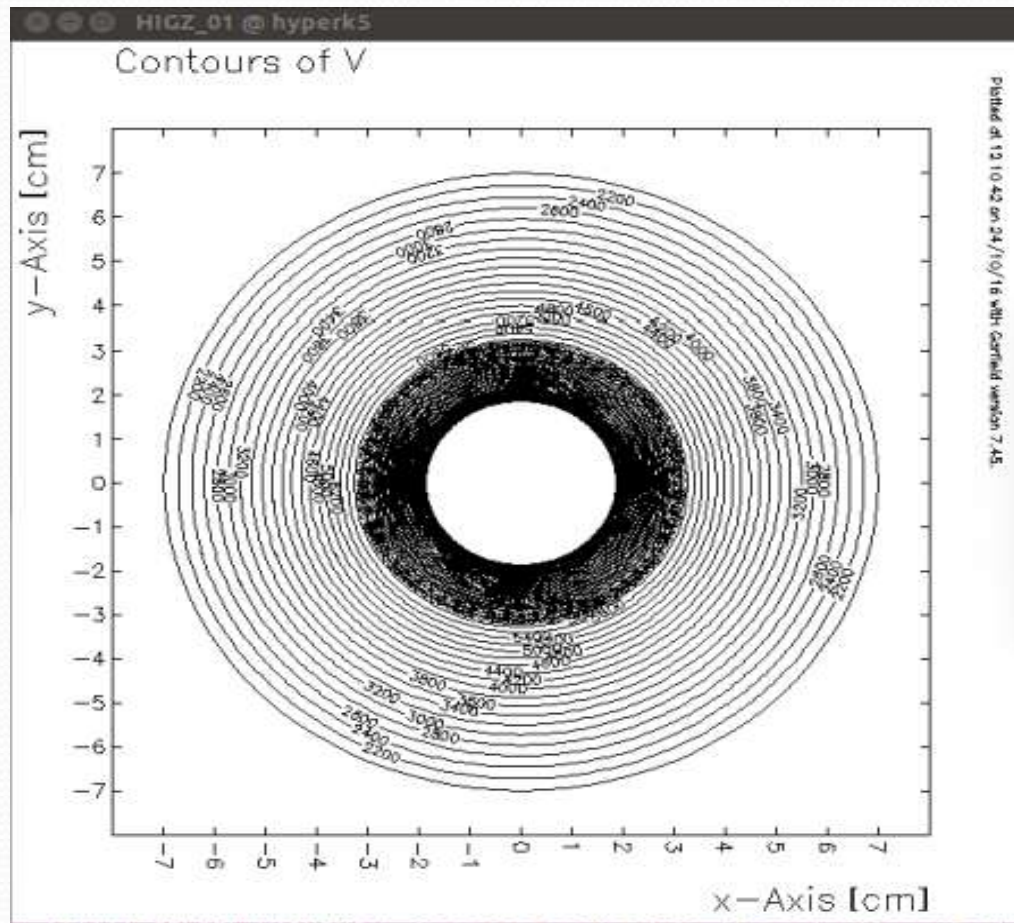


# Side view of detector

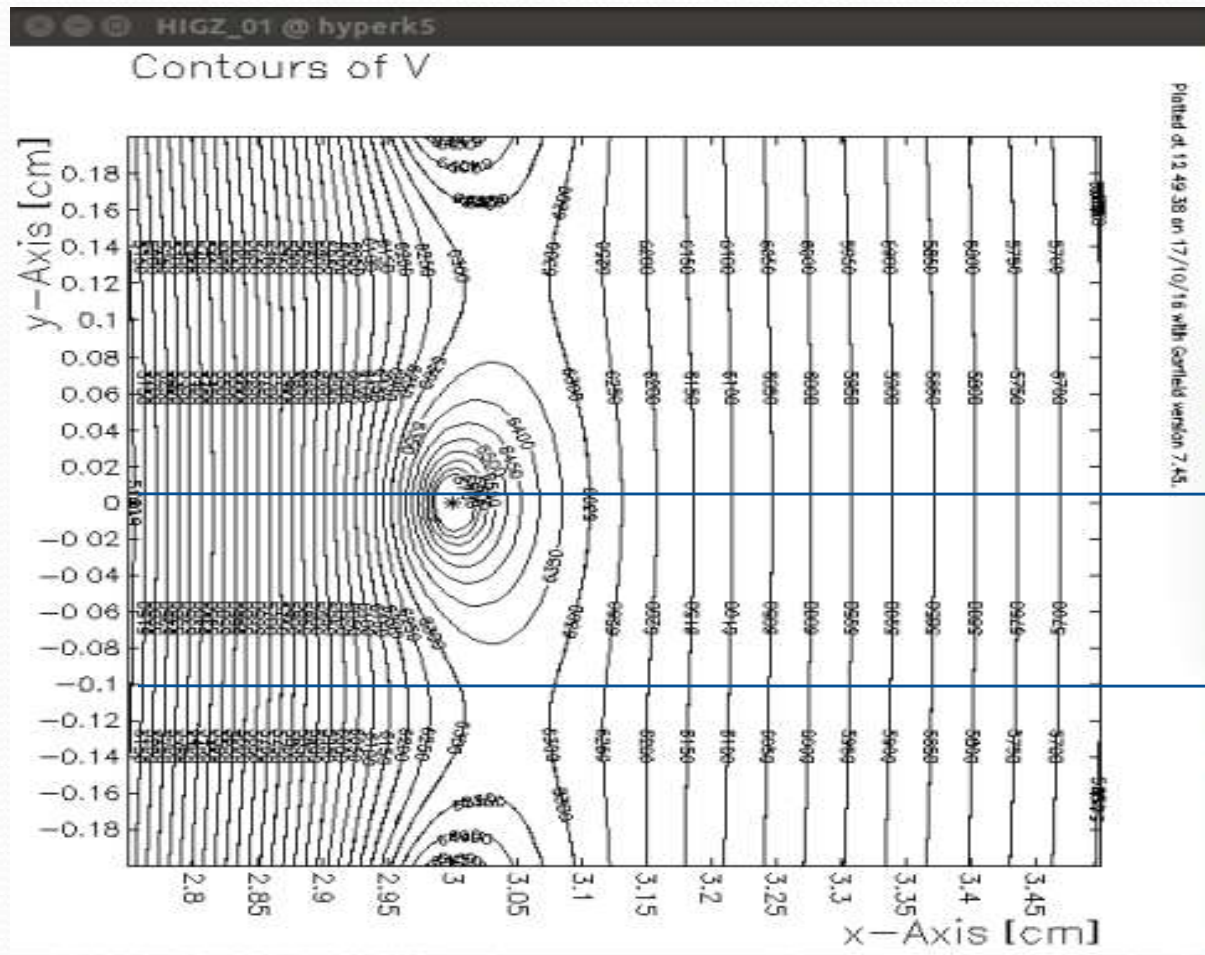




# E field with C-wires

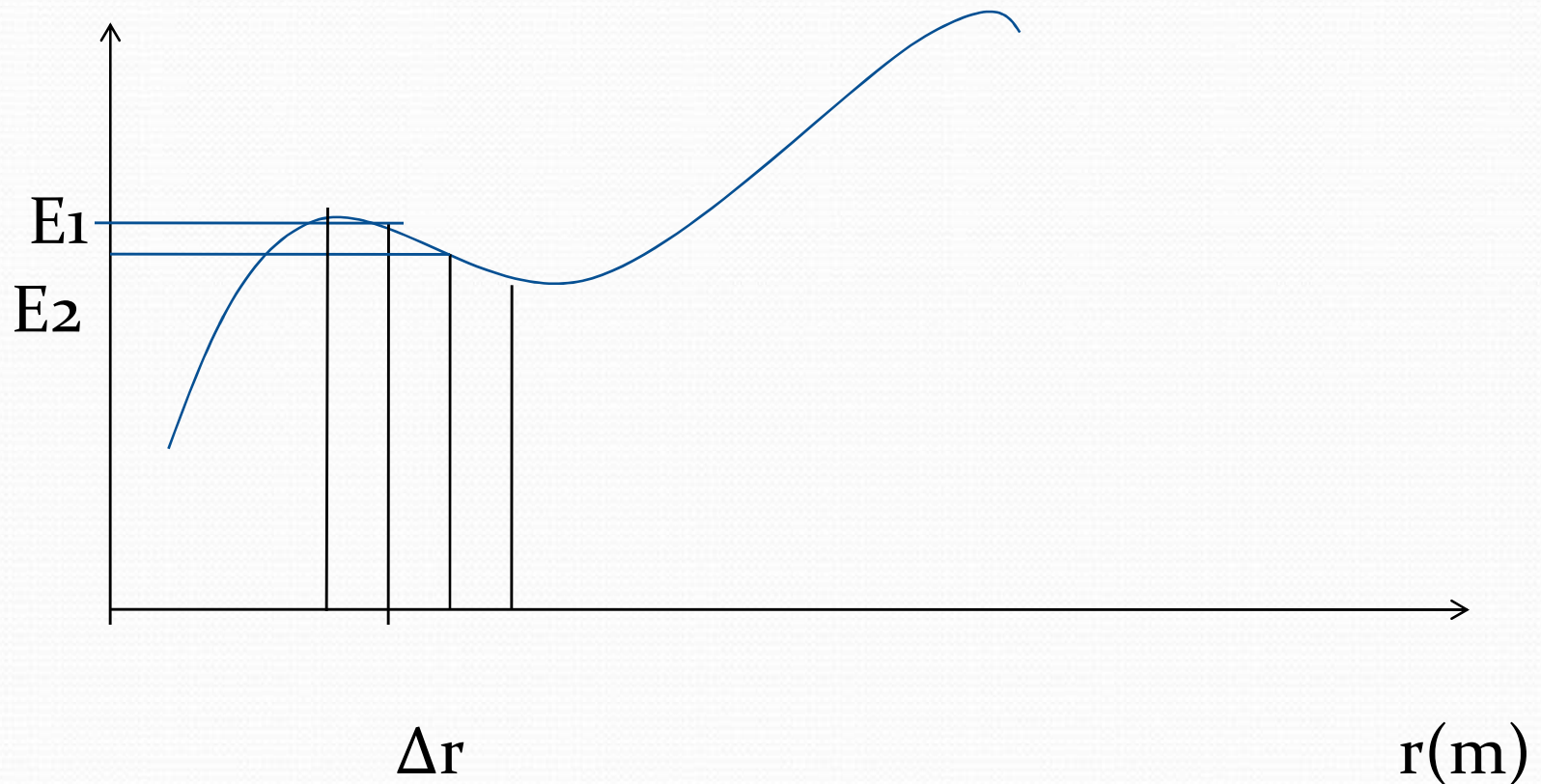


# Electric field with C-wires



# Field distortion calculations

E Field (V/m)





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- E field integral through selected line =  $\int E \cdot dr$   
=  $\sum E_{\text{avg}} \cdot \Delta r$

Here  $E_{\text{avg}} = (E_1 + E_2) / 2$

Field integration through line 1 = 2276.098 V

Field integration through line 2 = 1921.55 V



# Future works

- Select best step size
- Calculate drift time



**Thank you**