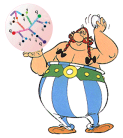
G_E^n Collaboration Meeting
Status Review
a.k.a. What We Did for Our Summer Vacations

Kathy McCormick



The Polarized Target

Target Cell Changes

- Increase Pumping Chamber Diameter
- Flat Windowed Pumping Chamber
- Hybrid Pumping (K+Rb)

New Laser Hut

- New Laser Hut Outside the Hall
  $\Rightarrow$ Laser Combiner + Fiber to Hall

Reducing Rates

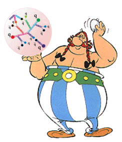
- Reduce the Amount of Material Along the Beam Direction
  $\Rightarrow$ Target Rupture Tests (W&M)

Holding Field

- Measuring the Polarization Direction
  $\Rightarrow$ Compass (UK)

State of the Target Lab

$\Rightarrow$ Two students working: Jing Yuan, Ameya Kolarkar



The Neutron Detector

New Collaborators

- Carnegie Mellon Group (Gregg Franklin, Brian Quinn)
  $\Rightarrow$ 104 More Neutron Bars (180 cm $\times$ 5 cm $\times$ 15 cm)

Incorporating New Bars

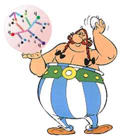
- Reconfiguration of the Full Detector
  $\Rightarrow$ Neutron Bars + Veto Layers Status

Time Resolution Simulations

- Simulated Detector with all Bars and Shielding
  $\Rightarrow$ Time Resolution for Neutrons $\sim$ 500 ps

Design and Construction

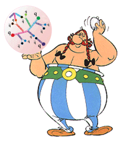
- Designer David Waldman Working Time



Neutron Bars

232 Bars + Spares from UVA+JLab, CMU and Glasgow U.

- UVA+JLab: $160 \times 10 \times 10$ cm^3, 2 in. tubes (2262)
- CMU: $180 \times 5 \times 15$ cm^3, 2 in. tubes (2262)
- Glasgow U: $180 \times 10 \times 20$ cm^3, 5 in. tubes (



The Bigbite Detector Stack

Detector Stack Final Configuration

⇒ 3 Chambers, Preshower, Trigger Scintillators, Shower

Status of Drift Chamber Construction at UVA

⇒ Work on First Chamber Ongoing (Nilanga's Talk)

Shower/Preshower Configuration

⇒ 189 Shower blocks/54 Preshower blocks (same width blocks)

Rates

⇒ Test Chamber Behind Bigbite (Pavel's Talk)