

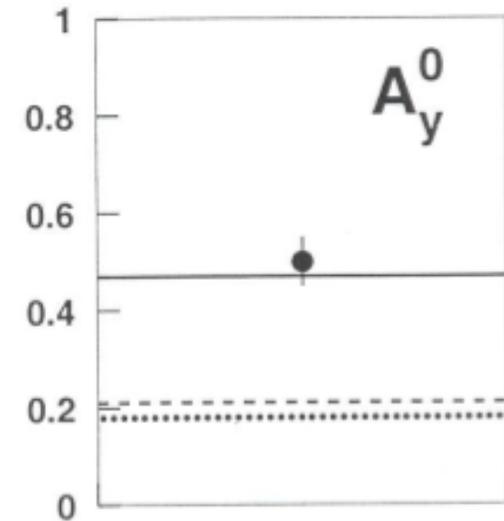
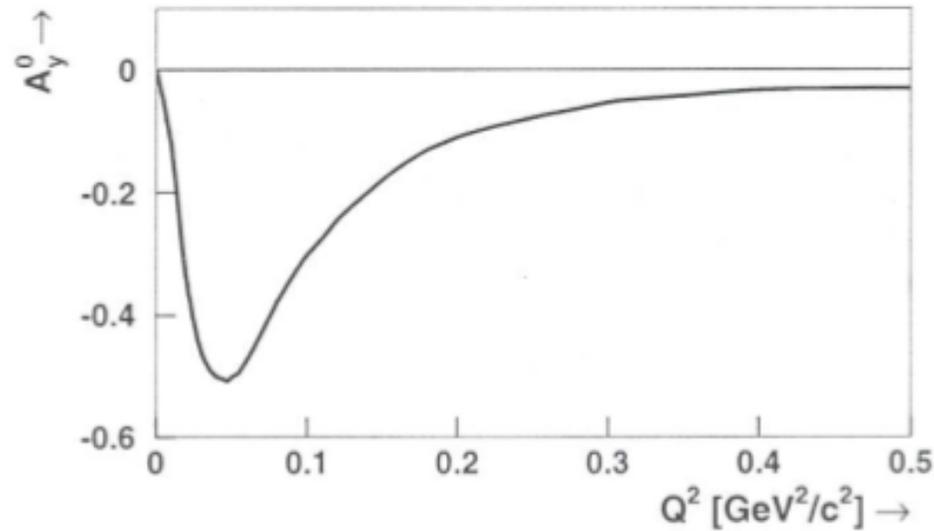
# Summary of Proposed ${}^3\text{He}^\uparrow(e,e'n)pp$ Measurement

presented

by

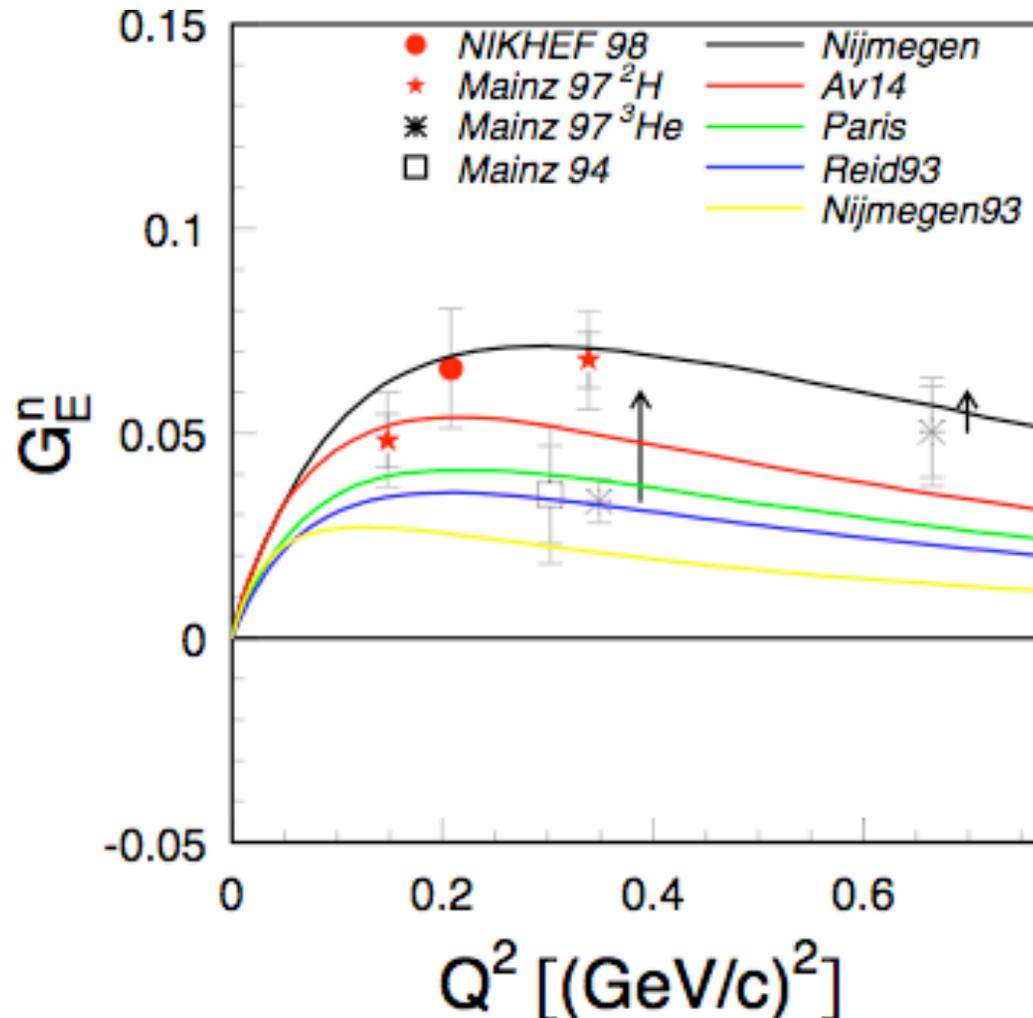
Douglas W. Higinbotham

# Accidental NIKHEF Measurement of ${}^3\text{He}^\uparrow(e,e'n)pp$



Asymmetry is exactly ZERO in PWIA

# Neutron Electric Form Factor Plot - circa 1999 -





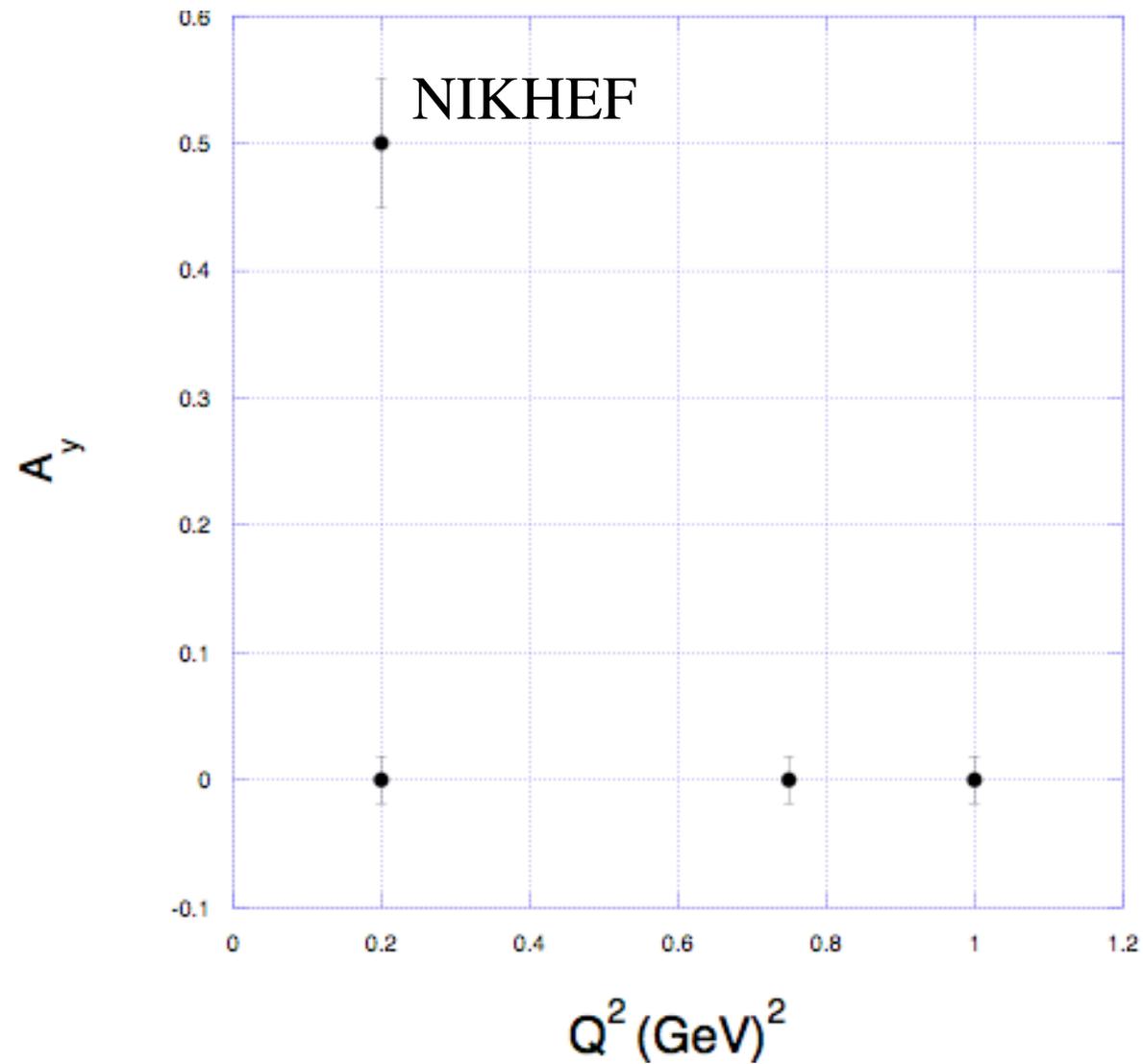
# Hall A Neutron Detector (HAND)



# Test of State-of-the-Art Models

(the same models that will be use to extract the neutron form factor from  ${}^3\text{He}$ )

# Measure $Q^2$ Dependence



# Summary

- December 2007  ${}^3\text{He}^\uparrow(e,e')$  &  ${}^3\text{He}(e,e'p)$  Experiment Will Be Setup
- Request To Place the Hall A Neutron Detector (HAND) Along q-vector
  - Right HRS is low counting, so we will just read neutron DAQ for each  $(e,e')$
  - Minimal effect on deadtime
- Commissioning Tests
  - ${}^3\text{He}(e,e'd)$  Collaboration's Idea of Running Neutron Detector w/o BigBite
  - Transverse Target Setup With A HUGE Asymmetry
  - Tests  ${}^3\text{He}(e,e'd)$  Idea of Running Opposite BigBite
- High  $Q^2$  Measurements will test the state-of-the-art calculations that are being done to extract the neutron electric form factor from  ${}^3\text{He}$  data.
- 0 PAC Days Required

**Open Question to Hall A Collaboration:**

**Shouldn't This Be Related Mathematically To DIS Transversity in a CQM?!**