NSF Neutron Science Investment

- Current involvement ($1.5M/year):
  - Neutron lifetime
    - J. Doyle (Harvard/NIST)
  - Neutron beta asymmetry (LANSCE)
    - A. Young (NCSU), co-spokes.
    - B. Filippone (Caltech)
    - R. B. Vogelaar (VT), run coordinator
  - $np \rightarrow d\gamma$ (LANSCE)
    - M. Snow (IU)
    - T. Chupp, K. Coulter (UM)
- Equipment investment (MRI, program): $1.1M

Science Context

- CKM Unitarity
  - V_{ud}
    - Neutron lifetime, beta asymmetry
    - PIBETA
    - Role of V_{us}
  - Other approaches, e.g. V_{cs}, V_{cd} at 1% level at CLEO-c?
- Neutron edm
  - LANSCE, SNS
  - Other measurements, e.g. muon edm

Future

- Several pathways, facilities
  - LANSCE
  - SNS
  - NIST
  - New (IU/LENS; other reactors)
  - Overseas (ILL, …)
  - Other?