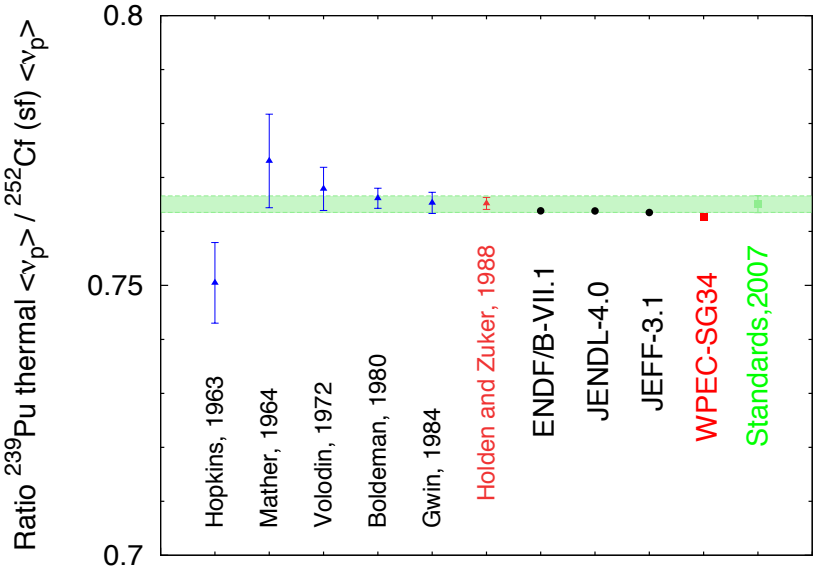
^{239}Pu – PFNS & PFGS

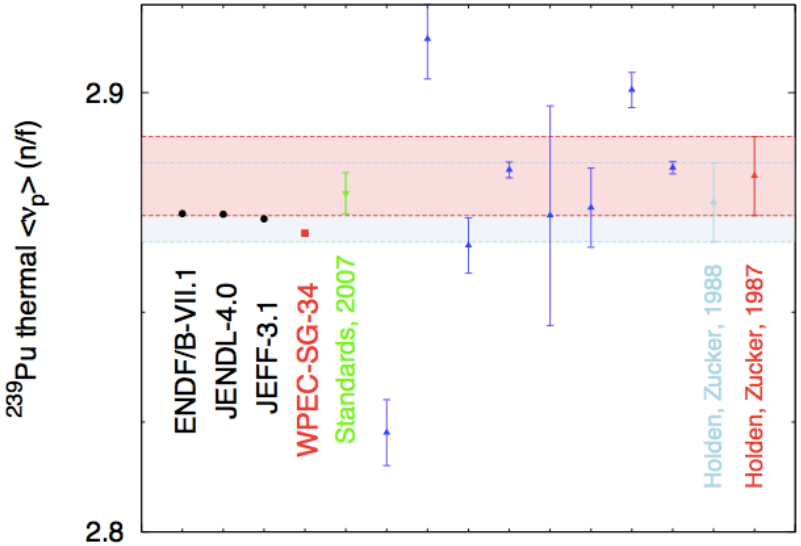
Patrick Talou

Los Alamos, April 11, 2016

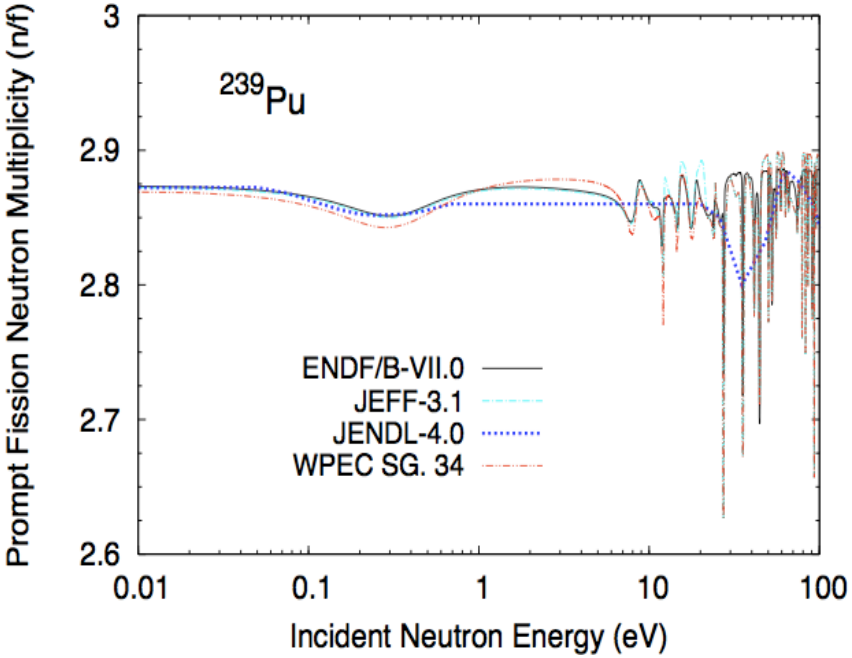
Prompt Fission Neutron Multiplicity

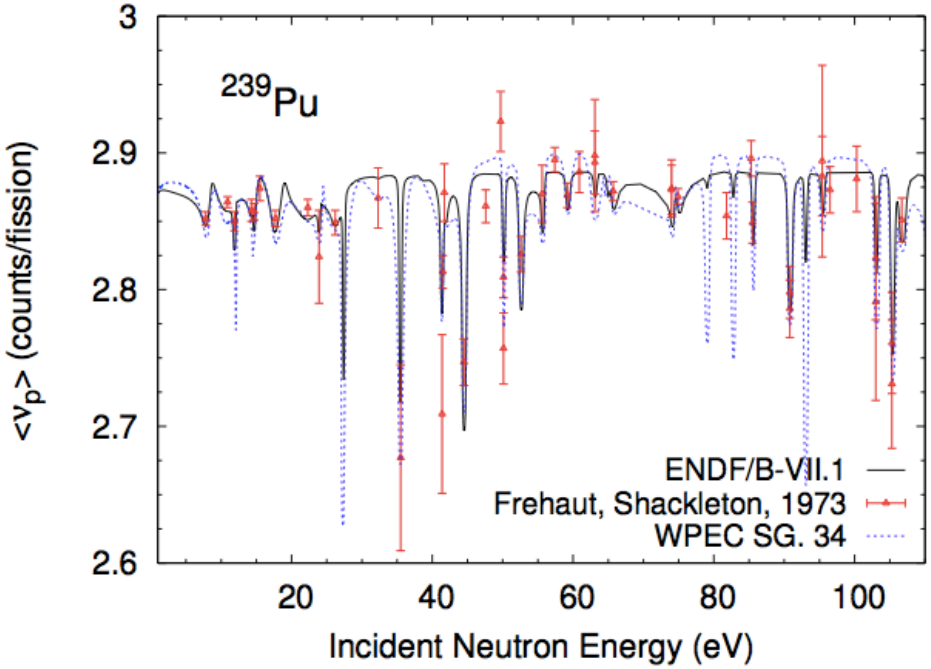
- **CIELO file:**
  - Thermal value + RRR below 650 eV adopted from SG34
  - “untweaked” nu-bar from covariance analysis between 0.1 and 1.2 MeV



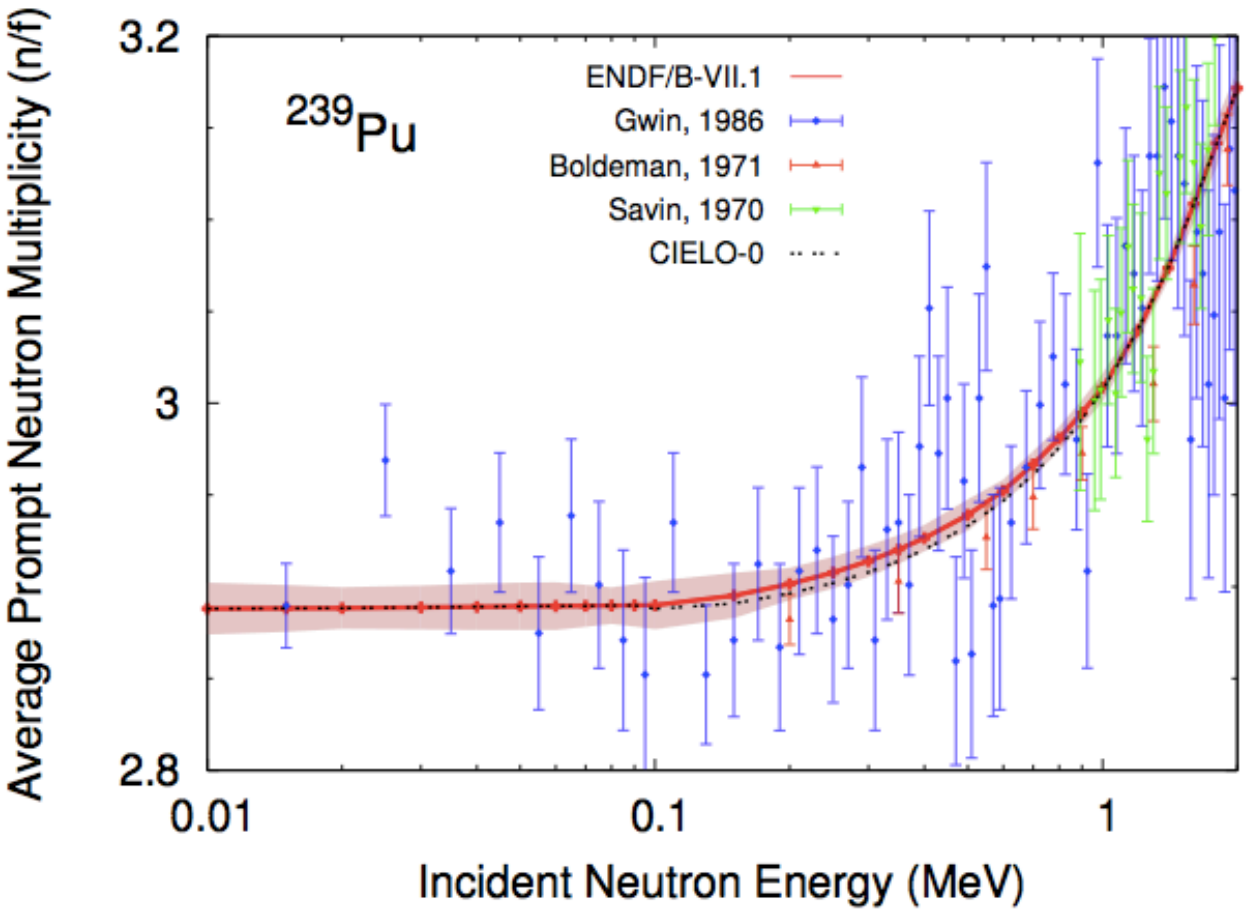


Fluctuations in the Resonance Region



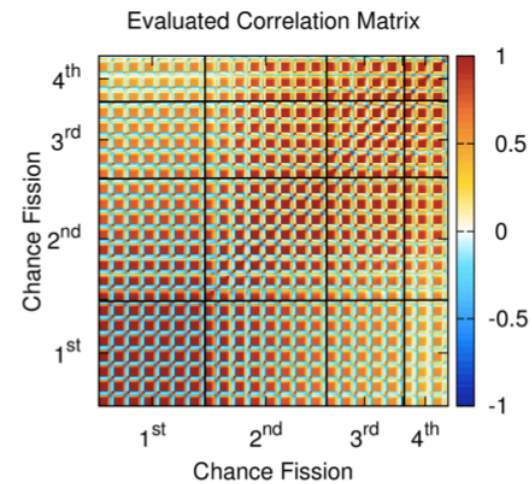


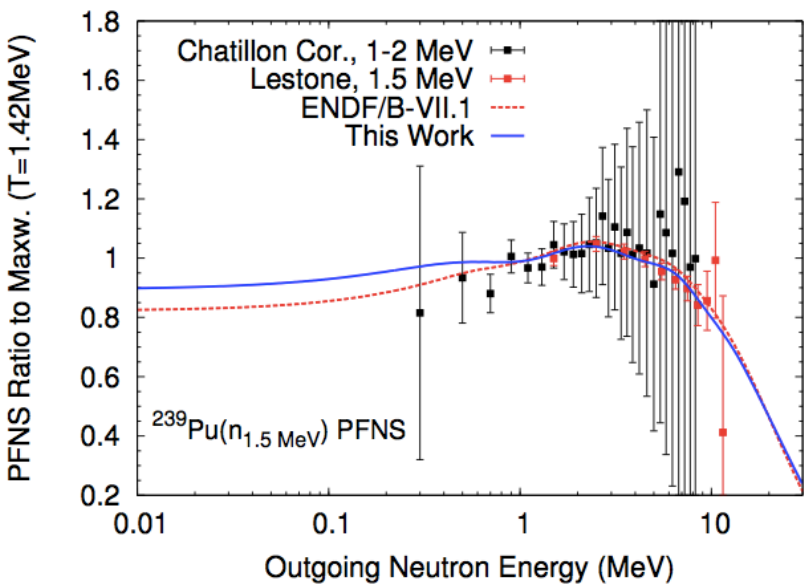
“Untweaked” nu-bar in the fast range

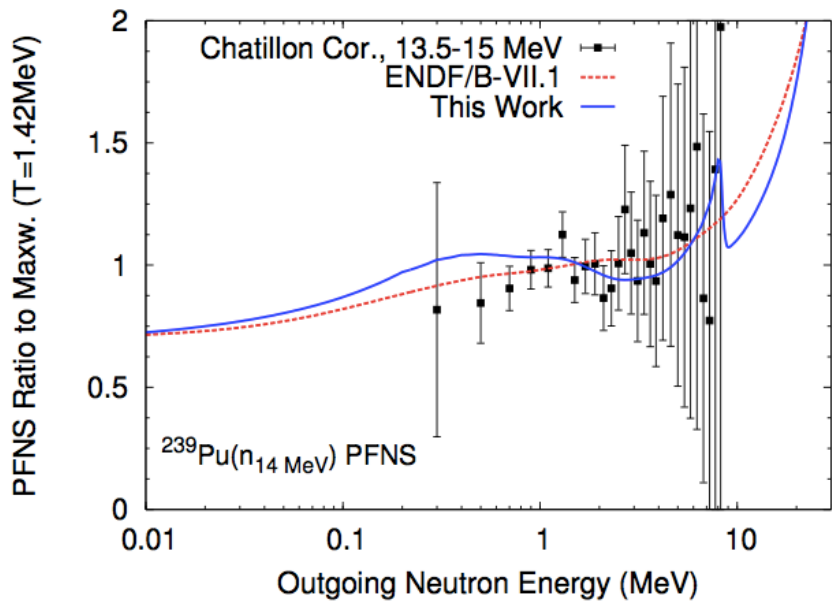


Prompt Fission Neutron Spectrum

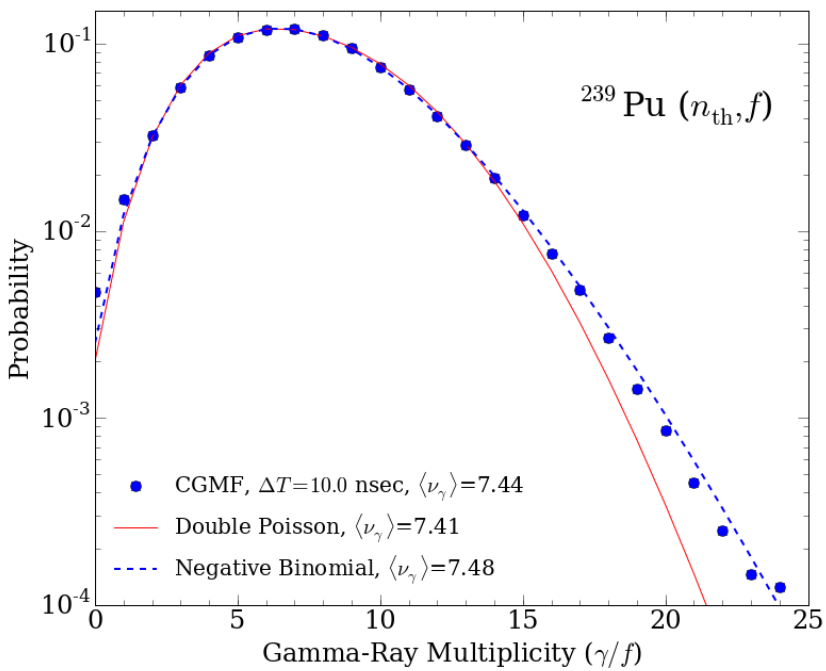
- New evaluation up to 20 MeV, Neudecker
- **CIELO file**: no changes below 5 MeV for now; adopt evaluation above 5 MeV? Test w/ LLNL pulsed sphere
- Wait for Chi-Nu data

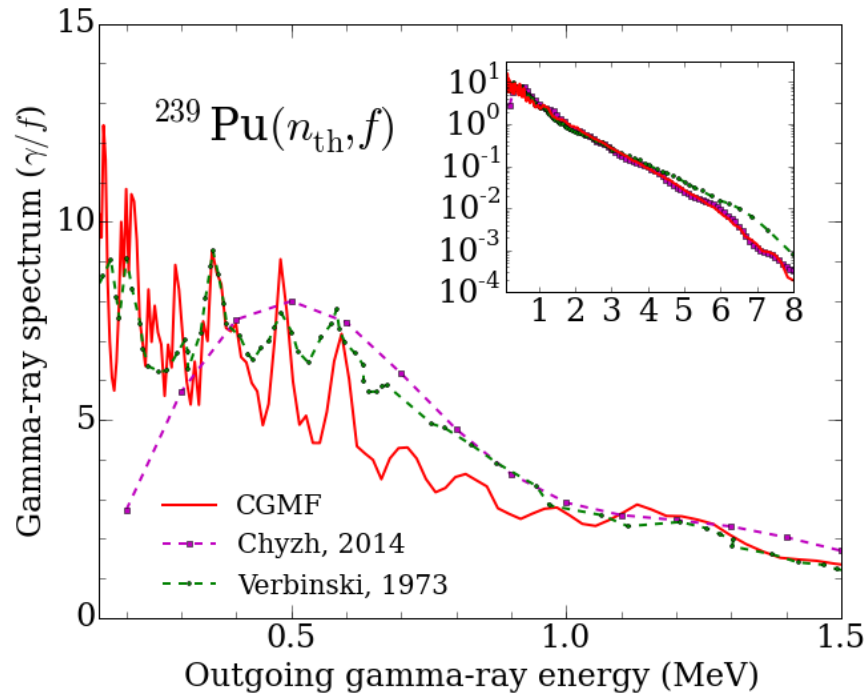






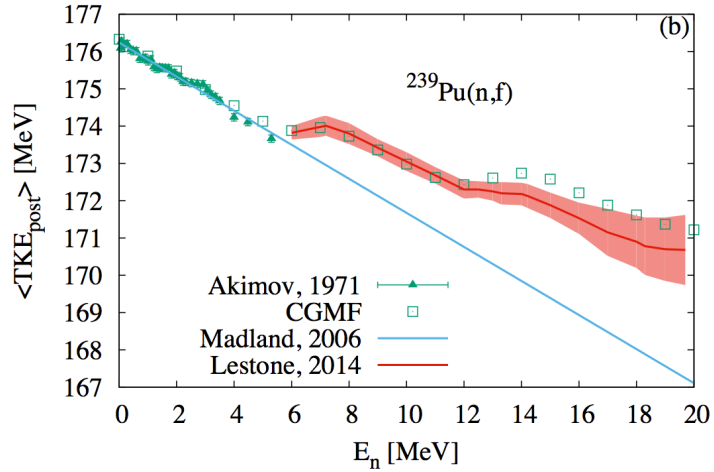
Prompt Fission Gamma Rays

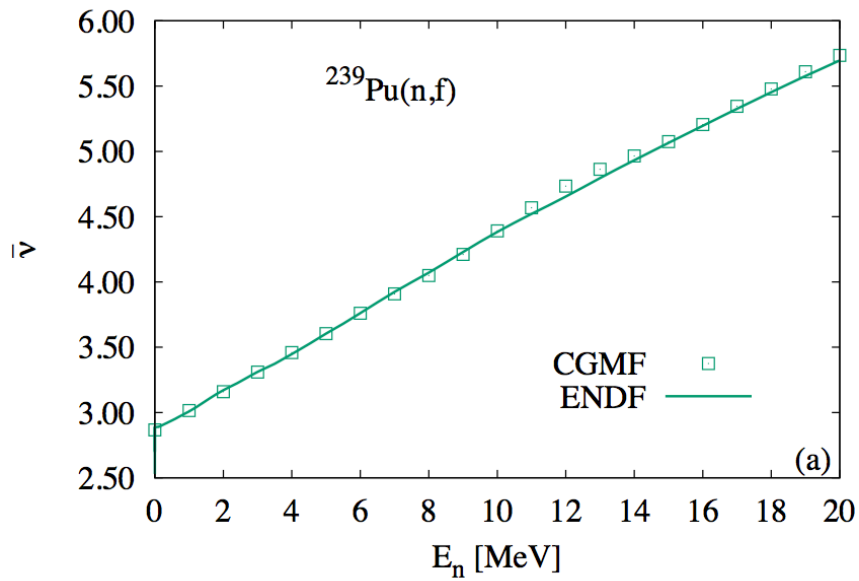


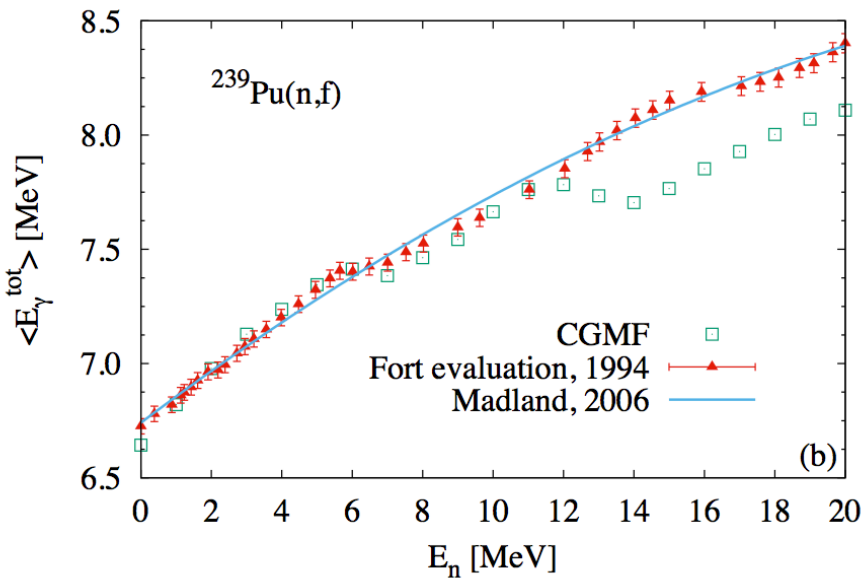
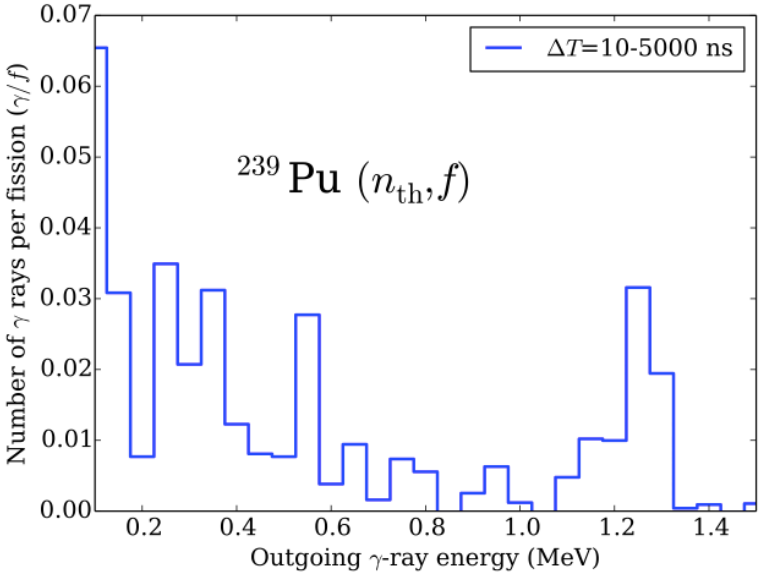
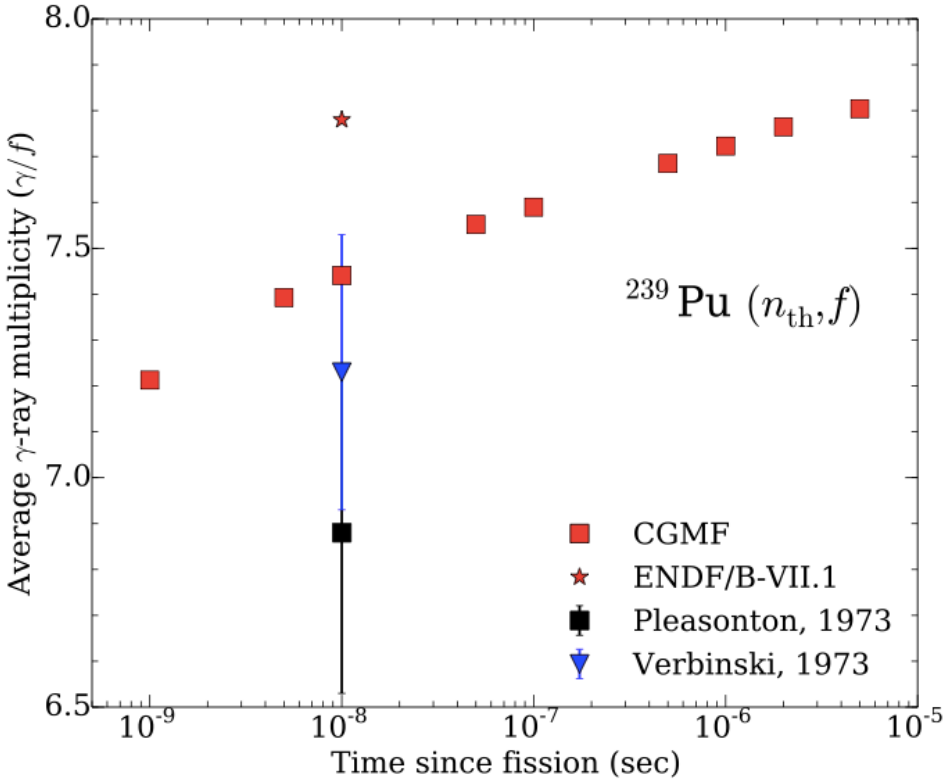


CGMF calculations up to 20 MeV

- Some inconsistencies between neutron and gamma data to revisit







Time-dependence of γ-ray multiplicity and energy