

Status of Nudy

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Introduction: Evaluated Nuclear Data File

ENDF File

Different sections

Complete

1 → General description, Fission neutron multiplicity, partial photon data

2 → Resonance parameters for cross-section

3 → Cross-sections for all reactions

4 → Independent angular distributions

5 → Independent energy distributions

To be checked

6 → Correlated angle-energy distributions

7 → Thermal neutron scattering data

8 → Decay data and fission products

9 → Multiplicities for radio-active nuclide production

10 → Production cross-section for radio-active nuclide

11 → General comments for Photon production

12 → Photon production multiplicities

13 → Photon production cross-section

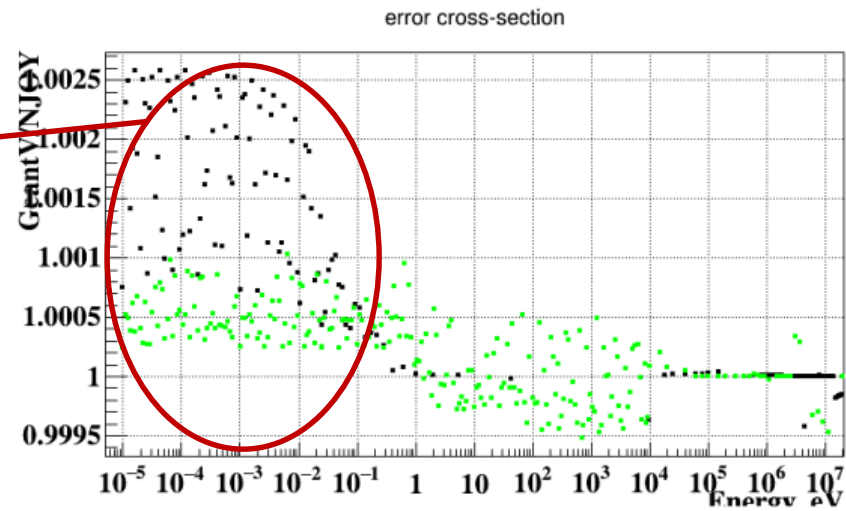
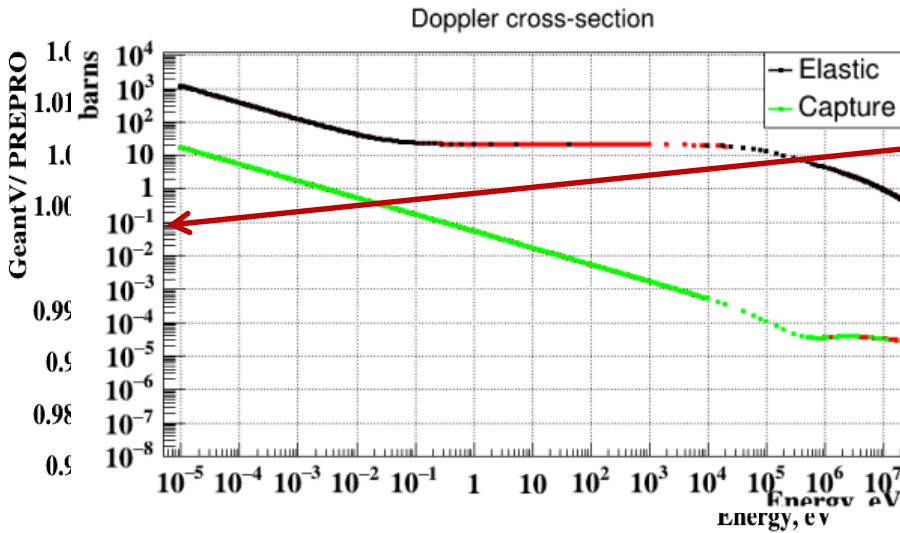
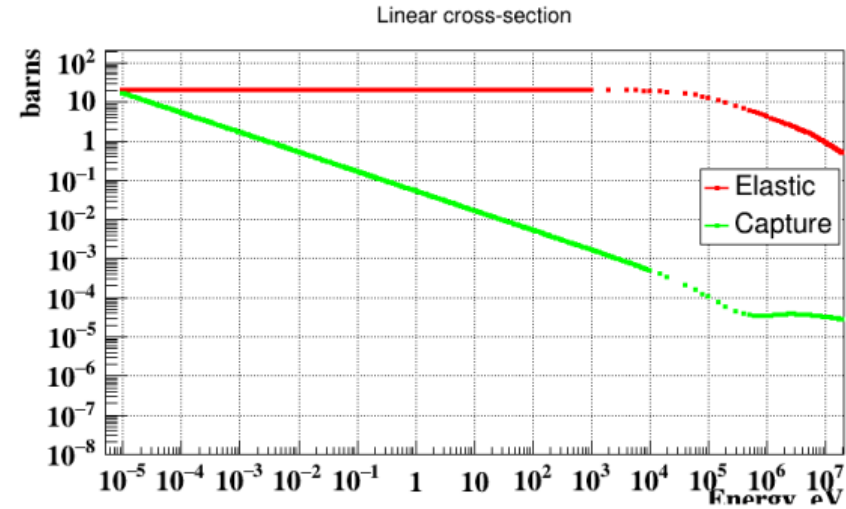
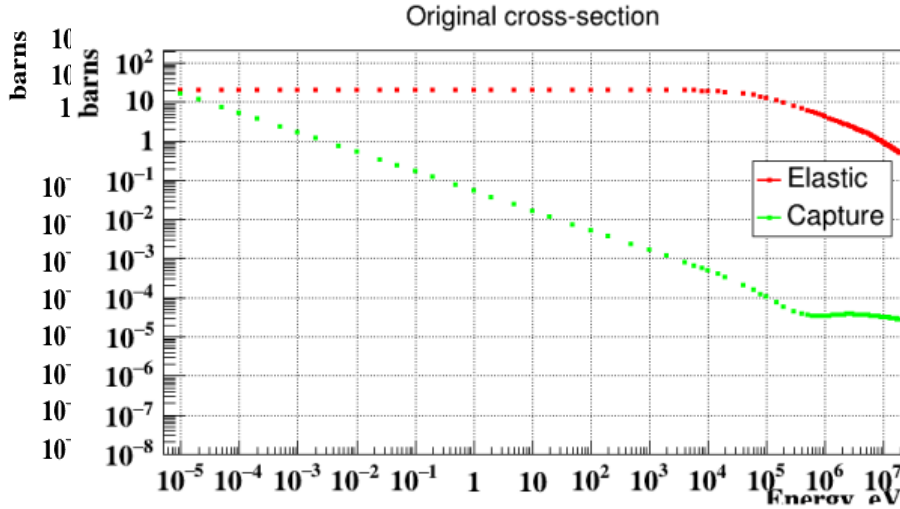
14 → Photon angular distributions

15 → Continuous photon energy distribution

To be Completed

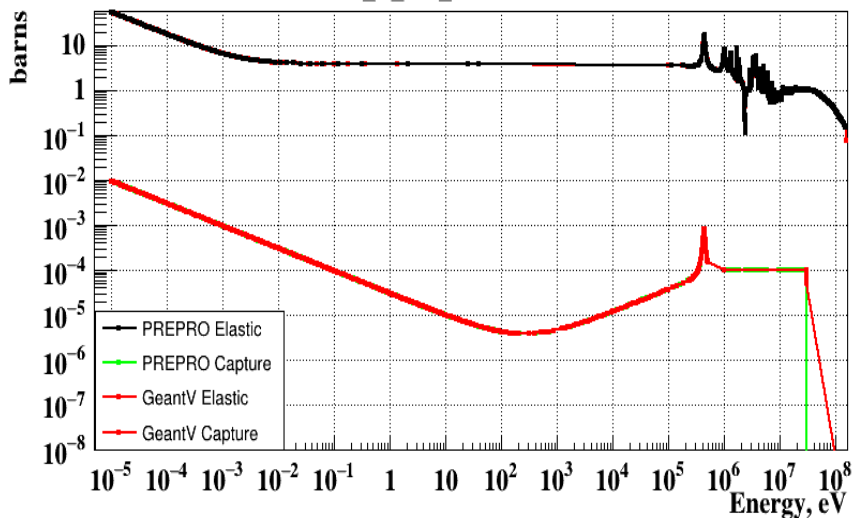


Reconstruction: Hydrogen cross-section

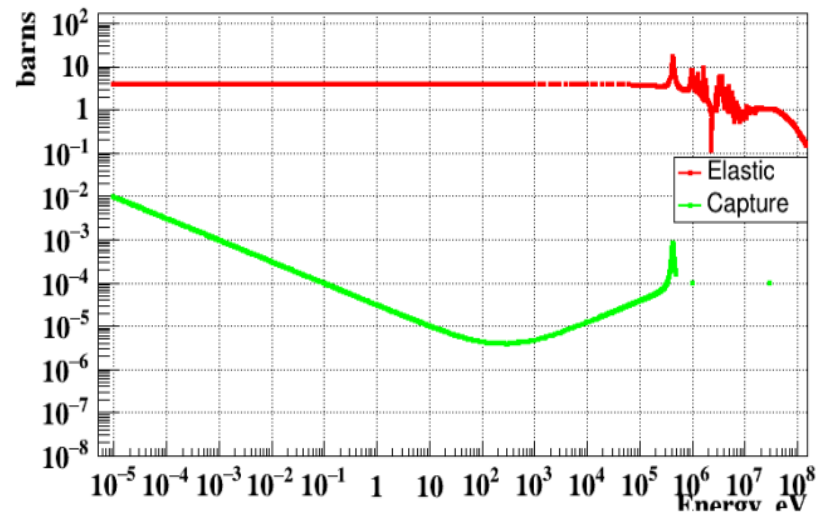


Reconstruction: O16 cross-section

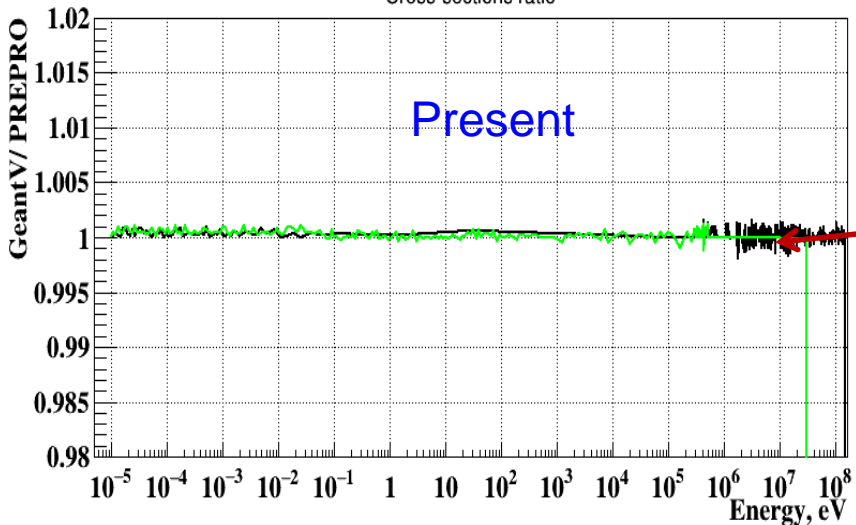
n-008_O_016_300 Cross-Section



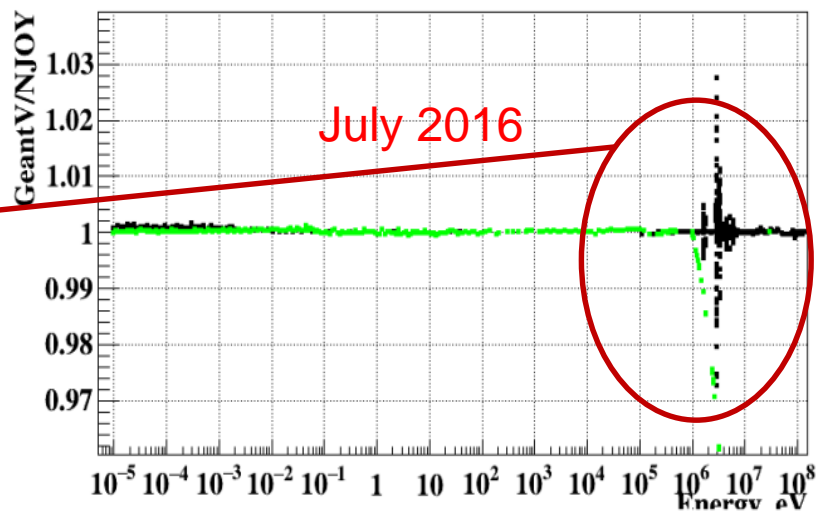
Linear cross-section



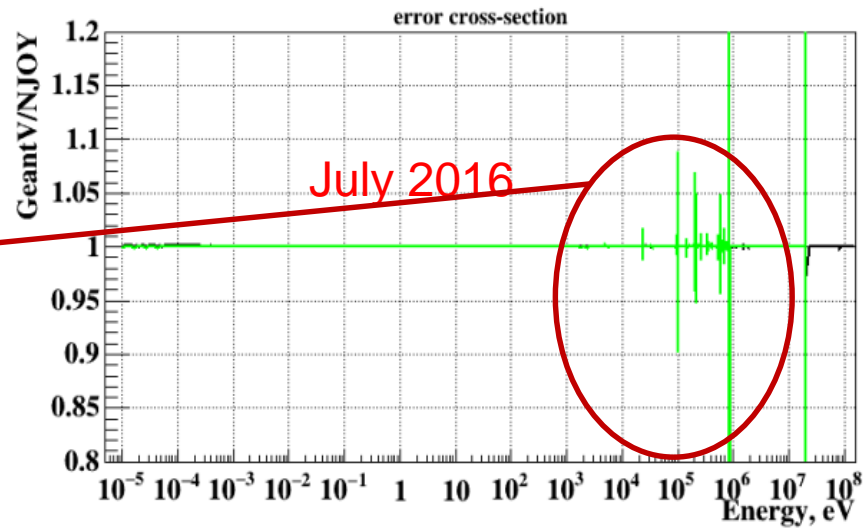
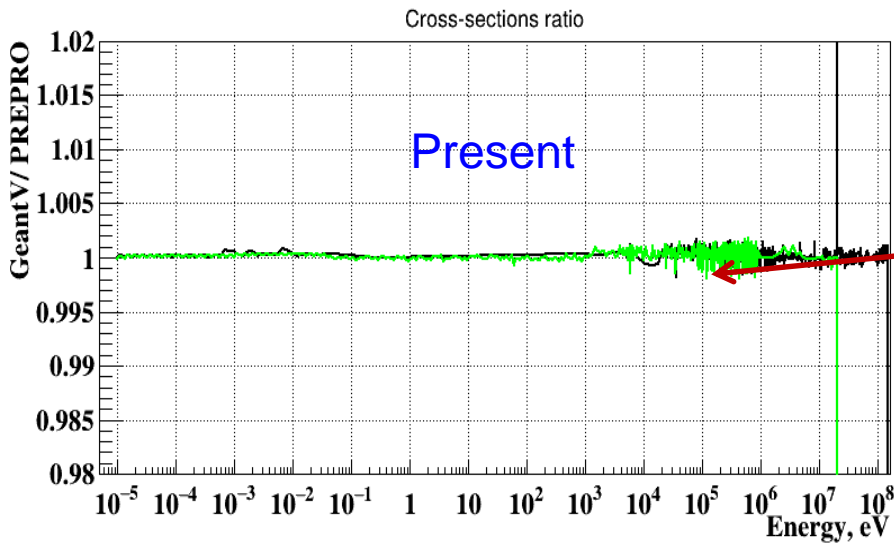
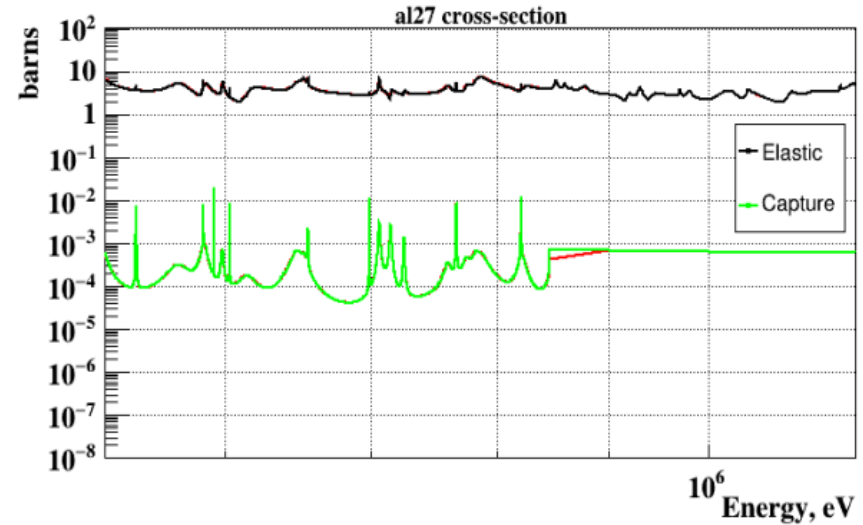
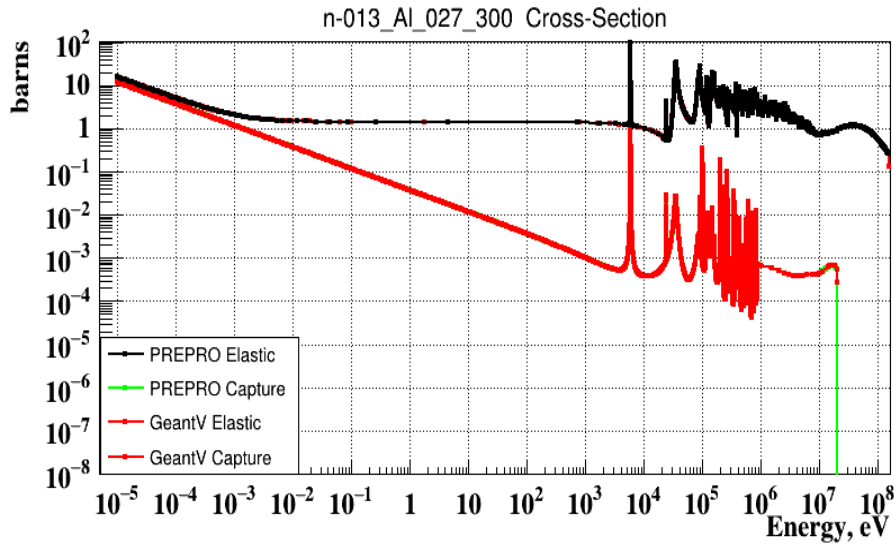
Cross-sections ratio



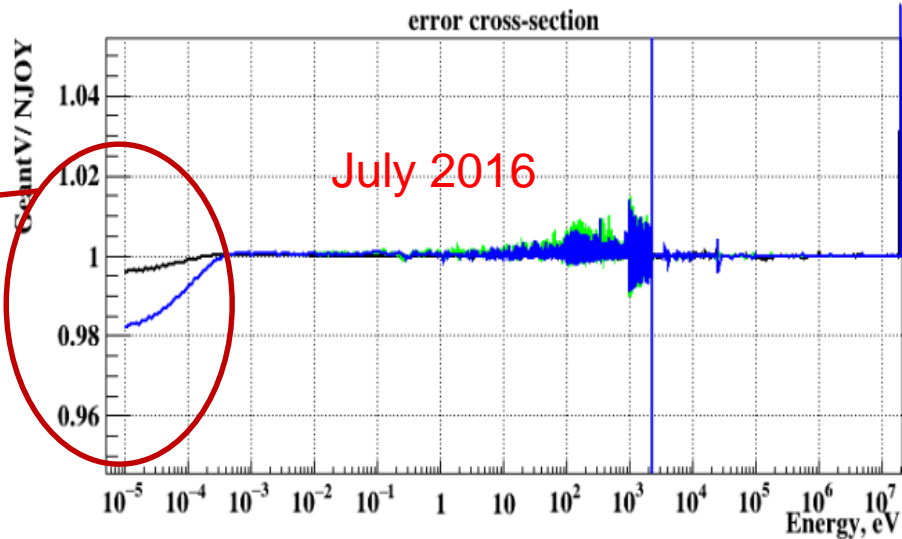
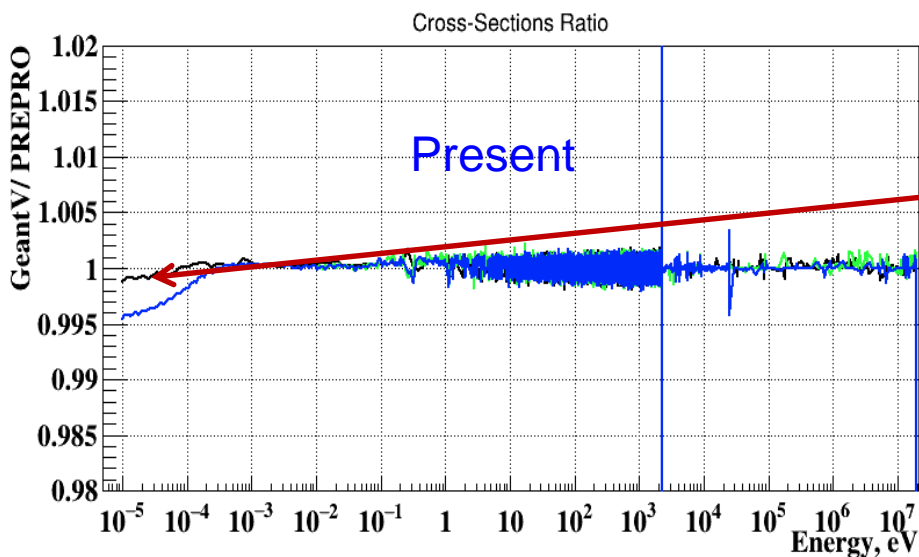
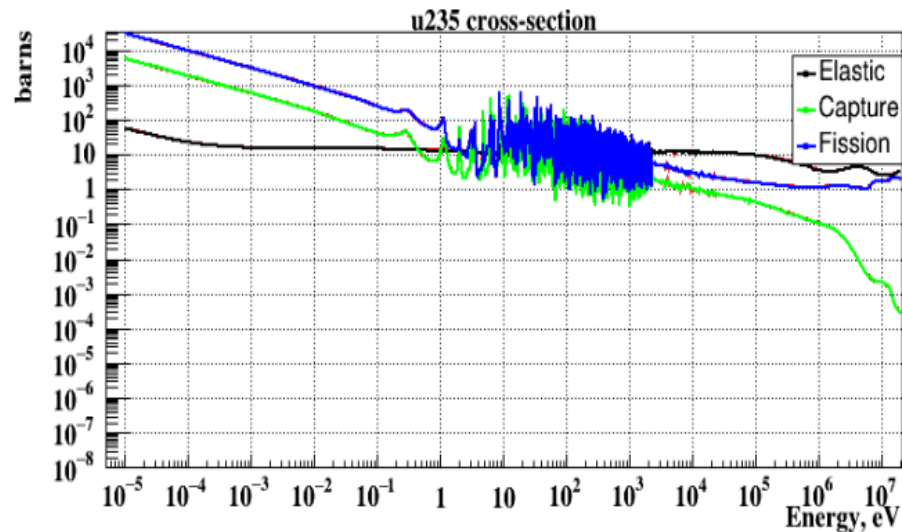
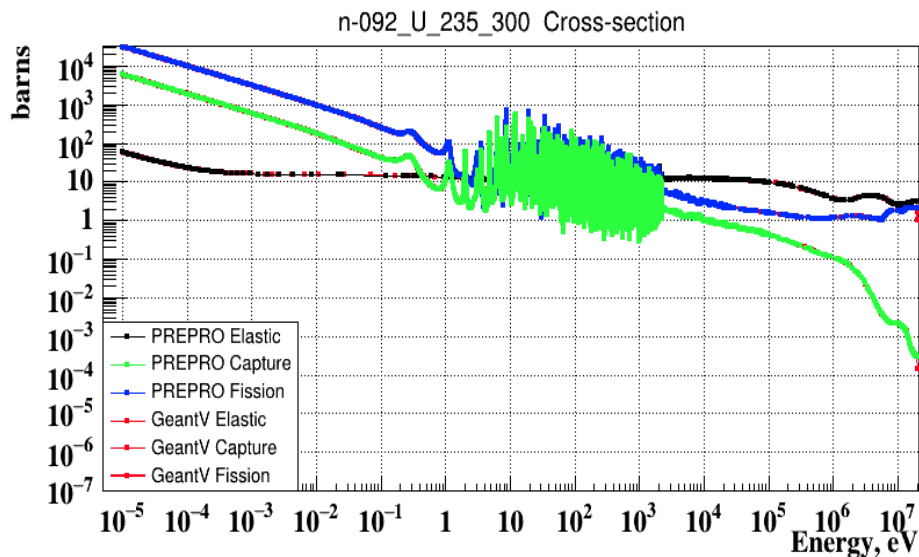
error cross-section



Reconstruction: Al27 cross-section



Reconstruction: U235 cross-sections



New Additions in Cross-sections

Neutron induced charge particle cross-section MT 103-107 (p, d, H3, He3, He4)
Are created if cross-sections are given in 600-850

Angular and energy distributions of these particles were read along with the Neutron but to be separated

Doppler broadening is improved by introducing new points around peak as the peak broadens

Strategy to be followed

My strategy is to put first neutron, second charge particles and Third photons

1) cross-sections 2) angle 3) energy



Status of photon production data

I have read photon cross-sections. Angle and energy is also done to some extent but it should be usable in the normalized format for continuous and discrete photons

I have run the program in my branch and created a merge request and people can start from here

That's all, folks!

