

Exercise 2 – Nuclear Fission

Welcome to the second tutorial!

We have talked about the **General Fission Model (GEF)** in the lecture.

I prepared three GEF output files:

- Spontaneous fission of ^{258}Fm .
- Thermal-neutron induced fission of the compound nucleus ^{236}U , i.e. $^{235}\text{U}(n_{\text{th}},f)$.
- Fission of ^{226}Th at an excitation energy $E^* = 12 \text{ MeV}$.

All files are in ASCII format and contain results for a number of observables. Please start plotting any of the observables you find interesting and discuss your findings. Any software tool which allows to plot numerical values can be used. Plotting of 2D histograms requires a bit more programming, and you might not have the time to do that. But I am confident that you can plot the 1D histograms pretty quickly.

Alternatively, you can either download the code from any of these web pages:

www.khschmidts-nuclear-web.eu, www.cenbg.in2p3.fr/GEF or from the Nuclear-Data Bank of NEA.

and start calculating fission of any nucleus you like. Warning: the code runs only on Windows and Linux, not on OS X.