Elastic scattering with FRESCO

➢ Run the input for proton elastic scattering over 40Ca at 30 MeV

➢ Find in which output file(s) the differential cross sections are (list of angles vs list of cross sections). You can refer to http://www.fresco.org.uk/guide/fresco-starting.html

➢ Compare to the experimental data

➢ Modify the input to calculate the same reaction as in the problem with eikonal approximation

➢ Use the KD_parametrization code to generate a parametrization for p + 40Ca at a 16 MeV energy

➢ Use https://www-nds.iaea.org/exfor/ to find experimental differential cross section data relative to Rutherford for 16 MeV protons and compare your results to it