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Visualizing Patterns in Nuclei with the Advanced Cross-Variable Plot BENJAMIN SHU, Brookhaven National Laboratory — The Evaluated Nuclear Structure Data File (ENSDF) provides recommended data on 3,350 nuclei which have been studied experimentally. The National Nuclear Data Center (NNDC) at Brookhaven National Laboratory maintains several web applications that allow users to query and display this data. In order to help visualize patterns across this wide range of nuclei, we have developed the Advanced Cross-Variable Plot. This web page allows users to plot up to 35 nuclear observables as functions of each other. Observables currently available include Q values, excitation energies, transition strengths, half-lives, and fission yields. Because of its connection to the ENSDF database, the Cross-Variable Plot can graph these patterns across all known nuclides as a user requests them. This makes it capable of illustrating known patterns as well as searching for patterns yet to be found. By implementing these functions, the NNDC hopes to make the Cross-Variable Plot a useful tool for education and future research. Work sponsored by the Office of NP, Office of Science of the U.S. DOE under Contract No. DE-AC02- 98CH10886

Benjamin Shu
Brookhaven National Laboratory

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