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## Abstract

# Input Format Design and Translator Development for NJOY

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The NJOY Nuclear Data Processing System is a software system used for nuclear data management [1]. In particular, it is used to convert evaluated nuclear data for materials stored in Evaluated Nuclear Data Files (ENDF) [2] into different formats, as well as performing operations on the data.

NJOY is widely used within nuclear data research, and as such, it is important that the system has a user friendly interface. The NJOY input instructions [4] is a non-interactive user interface used for specifying jobs to be run by NJOY. The input instructions are complex and hard to read compared to e.g. a high-level programming language. Working with a large and complex job easily becomes a daunting and error-prone task. Accordingly, there is a need for an improved input format.

In this thesis, a new input format has been designed. In order to make the new input format useable with NJOY, a translator which is able to translate the new input format into the original NJOY input instructions has also been implemented. The results have been verified by a small set of tests.

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