NuPECC LRP
TWG7 - Nuclear Data Status Report

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TWG7 - Nuclear Data Sub Group

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Progress and planning

First meeting on 11.05.2023 ✓

Structure of the subsection decided ✓

Next meeting: 22.06.2023

Meeting last week of July to discuss on the progress

Hoping for a first draft by the 1st week of September

Structure of the Nuclear Data sub-section

Introduction

Why nuclear data are important

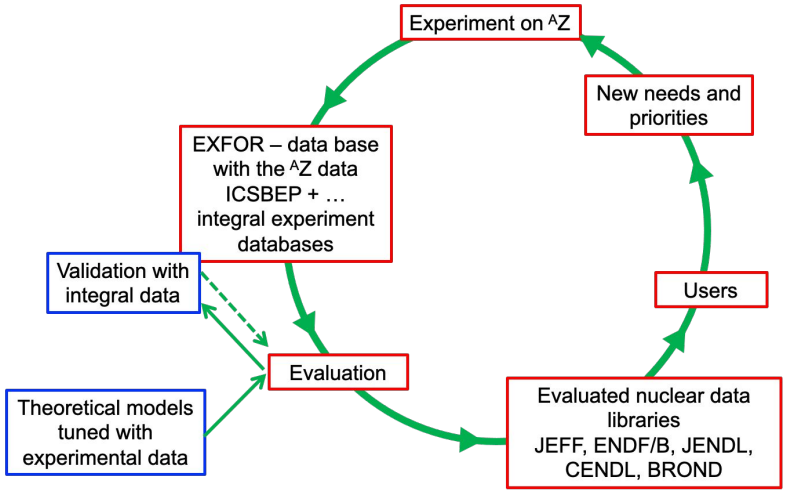
There are needed for virtually any nuclear application and also for fundamental nuclear science.

Types of nuclear data and relevance

- *Reaction cross sections*
- *Fission yields*
- *Nuclear structure data*

What do we understand by nuclear data?

It is a complete cycle



Structure of the Nuclear Data sub-section

Nuclear data needs and priorities

Fission

Fusion

Health applications

Isotope production, dosimetry - treatment planning

Material analysis

Charged particle reactions for IBA, NRA, Neutron Imaging, neutron activation, …

Metrology

Space applications

Common problems and recommendations

- *Attracting young people to the field: critical for the evaluation but also important for experiments & target laboratories. Very much linked to education and training, but not only.*
- *Better coordination between the experimental part, evaluators and end-users.*
- *Better coordination between the different fields.*
- *Strategic review.*

Structure of the Nuclear Data sub-section

Facilities and future experiments

The role of current and future facilities

- *Complementary top facilities (n_TOF, JRC-Geel, NFS)*
- *Small facilities are also important.*
- *Expected upgrades and new facilities.*

Target laboratories

- *The importance of the target laboratories and the need of the expansion of their activities*
- *Very few and loosing personnel.*
- *Complicated to get rare targets for experiments.*
- *PSI isotope separator has to be mentioned.*

Detector developments

- *Towards to inclusive measurements*
- *Segmentation*
- *Larger solid angle coverage*
- *Synergies with HE Physics*