GNDS/ FUDGE/GIDIplus introductory in-person training course

21-24 May 2024
Nuclear Energy Agency, Paris, France

Agenda

Start	End	Day 1_ Tuesday 21 May
09:00	09:30	Welcome and Setup
09:30	10:20	Introduction
		o Overview of nuclear structure, decay and reaction data needed by users
10:20	**10:35**	**Coffee-break**
10:35	11:30	Overview of GNDS-2.0 and mapping to data user needs
		o High-level overview of the types of data (evaluated and processed) stored in GNDS and the purpose of the 'styles' section.
11:30	**13:00**	**Lunch**
13:00	14:00	FUDGE installation and quick introduction
14:00	15:30	Closer look at evaluated data in GNDS
		o Examples of various ways of storing cross sections, product multiplicities and distributions, resonance parameters, fissionFragmentData, etc
		o ENDF-6 – GNDS data type matrix (how various MF sections map onto GNDS)
		o Examples of accessing and visualizing evaluated data
15:30	**15:45**	**Coffee-break**
16:00	17:30	Evaluated data special topics: covariances, atomic interactions, TNSL, charged-particle elastic scattering, fission product yields
19:00		**Social dinner**

Start	End	Day 2_ Wednesday 22 May
09:00	10:20	Detailed look at PoPs: nuclear structure, masses, decays, atomic relaxation
10:20	**10:35**	**Coffee-break**
10:35	11:30	Examples of data mining with PoPs
		o Discuss relationship between PoPs and the ENSDF modernization effort
11:30	**13:00**	**Lunch**
13:00	15:00	Using FUDGE to check formats and physics
		o ENDF-6 translation, schemas for GNDS format checking, checkGNDS and energyBalance for physics checking
15:00	**15:15**	**Coffee-break**
15:15	17:30	Case study: using FUDGE to find and fix problems in ENDF-VIII.1 candidate evaluations

Start	End	Day 3_ Thursday 23 May
09:00	09:45	Detailed look at derived data types
09:45	10:15	Introduction to processProtare
10:15	**10:30**	**Coffee-break**
10:30	11:30	Visualizing processed data, example processing code comparisons, ACE file generation
11:30	**13:00**	**Lunch**
13:00	15:15	Overview of other useful FUDGE scripts
		o energySpectrum, peek, diffGNDS, temperatures, etc.
15:15	**15:30**	**Coffee-break**
15:30	17:30	Introduction to GIDIplus, MCGIDI and G4LEND

Start	End	Day 4_ Friday 24 May
09:00	09:45	GNDS development roadmap
		o Known issues in GNDS-2.0
		o New types of data for next GNDS standard
09:45	10:15	Tips for writing FUDGE scripts
10:15	**10:30**	**Coffee-break**
10:30	11:30	Wrap-up + time for attendee questions, conclusion
11:30	**13:00**	**Lunch**