

DE LA RECHERCHE À L'INDUSTRIE



SG43: CODE INFRASTRUCTURE TO SUPPORT A GENERAL NUCLEAR DATABASE STRUCTURE (GNDS)

WPEC-SG43 Meeting, 16/05/2015 | Fausto MALVAGI, Caleb MATTOON, Jeremy CONLIN

Before

- **SG-38** (2013-2017): Beyond the ENDF Format
 - Detailed **Requirements** for a next generation **nuclear data structure** (Final version – June 28, 2016)
 - Requirements and specifications for a **Particle Database** (draft – 5 May 2015)
 - General-Purpose **Data Containers** for Science and Engineering (draft – 4 May 2015)
 - **Specifications** for the next generation nuclear data hierarchy (draft – May 2016)

Now

- **EG-GNDS** (Long Term) Expert Group on the Recommended **Definition** of a General Nuclear Database Structure (GNDS)
- **SG43** (2017-2020) Code **infrastructure** to support a modern general nuclear database (GND)

Goals

- To define an interface (API) for reading/writing GNDS
- To define checks to “validate” new evaluations

Stretch Goals

- To develop and share implementations of:
 - Reading/writing tools for evaluation manipulations
 - Visualization tools
 - Sampling tools
- To develop and share implementations of
 - Checking tools

Questions to answer

- What implementations do we target?
 - XML/HDF5
- What languages for the API?
 - Python; C++(11/14?); Fortran(95/.../2015?); Java?

How do we organize ourselves

- Subgroups?
- Meetings (more than once a year in Paris?)
- Collaborative space?

THANK YOU FOR YOUR ATTENTION