

DAPHONE4NFDI

Recording data with the help of photons and neutrons is limited to bigger institutes. Besides the limited time slots, this process is also quite expensive. To save resources, DAPHNE4NFDI focuses on creating ontologies and infrastructure to make all data from its participants FAIR. This enables users not only to use existing data but also to automatically fetch data for analysis. This analysis process can also be started in the institute context. This way, analysis can be made repeatable as well, because the used software is stored and versioned at the institutes.

Three big building blocks for this project are ontologies, metadata catalogs and a common search across all institutes. Ontologies are used to have the same names for the same variable or technique. Meta-data catalogs essentially are databases that store meta-data of the collected data. This meta-data describes the environment the data was collected in. The common search, along with the ontologies and meta-data catalogs, then enable users around the world to search for data by its meta-data.

A problem that other projects share is the sharing and tracking of data across multiple instances. If a sample is created in one institute and then taken to another one, the data has to be shared. Should the sample be altered or destroyed, this change has to be communicated to everyone else in order to save the whole life-cycle.

At JCNS we use the instrument control software Nicos. Nicos implements the concepts of data-sinks, which enables us to save the recorded data in multiple ways. To decouple Nicos and the meta-data catalog, we plan to use a structure that buffers every request. The two biggest advantages are network connection independence and logging of all operations.

Please assign your poster to one of the following keywords.

Standards

Please assign yourself (presenting author) to one of the stakeholders.

Data Infrastructure Provider

Please specify "other" (stakeholder)

In addition please add keywords.

NFDI

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