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DAPHNE4NFDI: DAta from PHoton and Neutron Experiments for NFDI

DAPHNE4NFDI (DAta from PHoton and Neutron Experiments for NFDI) is one of 19 consortia receiving funding as part of the German National Research Data Infrastructure (NFDI e.V.). The aim of DAPHNE4NFDI is to create a comprehensive infrastructure to process research data from large scale photon and neutron infrastructures according to the FAIR principles (Findable, Accessible, Interoperable, Repeatable). Broadly, we will provide the following tangible infrastructure through DAPHNE4NFDI for the wider photon and neutron community:

1. Improve metadata capture through consistent workflows supported by user-driven online logbooks that are linked to the data collection, thus enabling a richer capture of information about the experiments than is currently possible;

2. Establish a community repository of processed data, new reference databases and analysis code for published results, linked, where possible, to raw data sources, to sustainably improve access to research data and enable data and software re-use;

3. Develop, curate and deploy user-developed analysis software on facility computing infrastructure so that ordinary users can benefit from and repeat the analysis performed by leading power user groups through common data analysis portals. Uniquely, DAPHNE4NFDI engages directly with the user community to develop user-driven data solutions and infrastructure for the wider photon and neutron community. Hence, the DAPHNE4NFDI consortium consists of experts from KFS and KFN, experts from the different science fields and techniques at universities, research institutes and large-scale facilities and strongly interacts also with other NFDI-consortia.

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