

# Status Report PATOF WP2 Kilian Schwarz

# PATOF Work Package 2

- Name: Preparation of the APPLe data and metadata exploitation
- Run time: July 2023 – December 2024
- Task: to define metadata schemas and ways to implement the FAIR principles to the APPLe experiments
- Milestone: D4, June 30, 2024,
  - Report on the application of D3 on APPLe

# Building on top of experience with A4

- Work on providing a FAIR data repository of the experiment data fairly advanced
- metadata-enriched and machine-readable XML files have been provided
- Instrument Persistent Identifiers (PIDs) are being provided
- A publishable version of a test data set is being provided
- Work ongoing for developing an internal structure and making the ROOT data files human- and machine-readable
- Electronic Lab Notebook is being white/blacklisted in order to select publishable content.

# Application on APPLe

- First outline for a data format compatible to NeXus
- Via automatic procedures data can be read out from DOOCS and then be converted and stored in a NeXus file structure with specifications based on JSON configuration files
- New modular framework maintains data and metadata tracking and has started to be used by ALPS II for data analysis
  - See status report of George Sedov
- First contacts to SciCat developers for using SciCat as metadata catalogue

# Application on APPLe

- Developments for ALPS II propagated to LUXE and other experiments via local experiment's meeting at DESY
- First discussions about an experiment overarching infrastructure for Open Data at DESY have started.
- a common metadata schema has been developed to be commonly used by both laboratories DESY as well as GSI
  - It is foreseen to map the A4 and ALPS II data to this metadata schema.

# publications

## **Publications:**

- ICALEPCS 2023 in Cape Town (poster and paper): "Creating of HDF5 Files as Data Source for Analyses Using the Example of ALPS IIc and the DOOCS Control System",  
<https://icalepcs2023.vrws.de/>
- ICALEPCS 2023 in Cape Town (talk and paper): "IR of FAIR - Principles at the Instrument Level", <https://icalepcs2023.vrws.de/>
- FAIRMAT User Meeting (poster): "Towards Intelligible Metadata",  
<https://www.fairmat-nfdi.eu/events/fairmat-users-meeting-june-23/home-users>
- HMC conference 2022, (talk): "Use Cases in HMC – from Generation to Reuse of Data",  
<https://events.hifis.net/event/469/timetable/>
- HELIPOINT workshop (poster): "IR of FAIR - Principles at the Instrument Level",  
<https://events.hifis.net/event/792/timetable/>
- HELPMI workshop (talk): "IR of FAIR - Principles at the Instrument Level"

# outview

- Writing milestone D4:
  - Report on the application of D3 on APPLe
  - Due June 30, 2024
  - Input required from D3
    - D3 [29 Feb 2024]: Alpha version of the description of the “FAIR Metadata Factory”
    - based on D2 (HI Mainz, DESY).