MC-ReDD – Metadata Capture and validation for Re-use of raw Diffraction Data

OSCARS
Open Science Clusters' Action for Research & Society

To tackle the challenge posed by the vast amounts of raw data in diffraction experiments, MC-ReDD will focus on the expanded imgCIF format, which allows easy transfer and processing of the metadata associated with image data, without needing to transfer the actual data images, with the goal of facilitating the interoperability and reusability benefits offered by the imgCIF scheme.

PaNOSC
Photon and Neutron Science

Challenge

Current methods for handling raw data lack standardisation, hindering transparent communication between researchers, and making it harder to trust and reuse data across disciplines.

Solution

MC-ReDD will create a publicly-available, easy-to-use tool for semi or fully automatic construction of imgCIF files from raw data sets, offering a way to transparently communicate rich information about raw data in a standardised, robust, machine-readable fashion, allowing third-party raw data services to be provided on the open web.

Scientific Impact

While enhancing interoperability and reusability of raw diffraction data across scientific domains, the project aims to make the tools available as an Open Science Service within the EOSC Web of FAIR data and Services, and in the form of an open service hosted by the IUCr journals website.

https://www.oscars-project.eu/projects/mc-redd-metadata-capture-and-validation-re-use-raw-diffraction-data

Partners

European XFEL, International Union of Crystallography Journals