

The implementation of Data Management and Data Service for HEPS (Remote presentation)

China's High Energy Photon Source (HEPS), the first national high-energy synchrotron radiation light source and soon one of the world's brightest fourth-generation synchrotron radiation facilities, is being under intense construction in Beijing's Huairou District, and will be completed in 2025.

To make sure that the huge amount of data collected at HEPS is accurate, available and accessible, we developed an effective data management system that is aimed at automating the organization, transfer, storage, distribution and sharing of the data produced from HEPS experiments. First, the general situation of HEPS and the construction progress of the whole project are introduced. Second, the architecture and data flow of the HEPS DMS are described. Third, key techniques and new function modules implemented in this system are introduced. For example, the process of automatic data tracking when using a hierarchical storage policy is illustrated, and how the DMS deals with the metadata collection when an emergency occurs such as beamline network interruption. Finally, the progress and the effect of the data management and data service system deployed at testbed beamlines of BSRF are given.

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Session Classification: Data Management & Big Data

Track Classification: Track 6: Data Management & Big Data