Contribution ID: **590** Contribution code: **THPS048** Type: **Poster Presentation**

eLog analysis for accelerators: Status and future outlook

Thursday 5 June 2025 15:30 (2 hours)

This work demonstrates electronic logbook (eLog) systems leveraging modern AI-driven information retrieval capabilities at the accelerator facilities of DESY and Lawrence Berkeley National Laboratory (LBNL). We evaluate contemporary tools and methodologies for information retrieval with Retrieval Augmented Generation (RAGs), focusing on operational insights and integration with existing accelerator control systems.

The study addresses challenges and proposes solutions for state-of-the-art eLog analysis through practical implementations, demonstrating applications and limitations. We present a framework for enhancing accelerator facility operations through improved information accessibility and knowledge management, which could potentially lead to more efficient operations.

Footnotes

Paper preparation format

LaTeX

Region represented

America

Funding Agency

Author: SULC, Antonin (Helmholtz-Zentrum Berlin fuer Materialien und Energie GmbH)

Co-author: HELLERT, Thorsten (Lawrence Berkeley National Laboratory)

Presenter: SULC, Antonin (Helmholtz-Zentrum Berlin fuer Materialien und Energie GmbH)

Session Classification: Thursday Poster Session

Track Classification: MC6: Beam Instrumentation and Controls,Feedback and Operational Aspects: MC6.T33 Online Modelling and Software Tools