

Towards Unlocking Insights from Logbooks using AI at DESY and BESSY

Thursday, March 7, 2024 1:50 PM (20 minutes)

Logbooks store important knowledge of activities and events that occur during accelerator operations. However, orientation and automation of accelerator logbooks can be challenging due to various challenges like very technical texts or content being hidden in images instead of text. As AI technologies like natural language processing continue to mature, they present opportunities to address these challenges in the context of particle accelerator logbooks.

In this work, we explore the potential use of state-of-the-art AI techniques in particle accelerator logbooks. Our goals are to help operators increase the FAIR-ness (findability, accessibility, interoperability, reusability) of logbooks by exploiting the multimodal information to make everyday use easier with multimodal LLM (large language models).

Primary Keyword

foundation models

Secondary Keyword

Tertiary Keyword

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Session Classification: Tools for Humans

Track Classification: Tools for Humans