

Automation CERN –Progress with automating CERN's accelerator fleet

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Automation has become one of the key topics of preparing CERN's accelerators for the future. It has been identified as essential for the existing complex to cope with upcoming challenges as well as for future projects such as the FCC, that will require a significant reduction of exploitation cost compared to today's standards to get accepted. In recent years, the highest impact areas of automation have been identified and a roadmap for implementation has been prepared. It should allow full automation of most standard processes. This contribution will show recent progress with autonomous control building blocks and results in operation. Organizational aspects and new interesting algorithms will also be discussed. And finally the remaining questions and challenges will be mentioned.

Primary Keyword

AI-based controls

Secondary Keyword

MLOps

Tertiary Keyword

reinforcement learning

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