

Insights and Conclusions from Operating the CERN Linac4 LLRF System

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The CERN Linac4 accelerator, completed in 2017, achieved a significant milestone when it was connected to the Proton Synchrotron Booster (PSB) in December 2020, enhancing its operational capabilities. This paper provides an overview of Linac4's parameters and RF layout, emphasizing key aspects of its design. It focuses on the identification and resolution of operational issues encountered during the initial operations, providing insights into the implemented corrective measures. Additionally, the paper highlights the potential for future advancements, including the exploration of longitudinal painting techniques, which may soon be applied in the Linac4 system for improved beam manipulation and optimization.

Keyword

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