



Contribution ID: 1975 Contribution code: THPA021

Type: **Poster Presentation**

Simulation study of an adaptive feedforward control for CSNS RCS LLRF system

Thursday, 11 May 2023 16:30 (2 hours)

In the CSNS RCS RF system, a combination of feed-back control and adaptive feedforward control was proposed in the Low-Level Radio Frequency (LLRF) system to ensure stable beam acceleration. Although the effectiveness of the feedforward control has been confirmed in operation, a detailed study on it is still necessary. This paper presents a detailed study on the feedforward control based on Simulink simulations and proposes an optimization scheme to further improve its performance. The proposed adaptive feedforward control is reviewed, and the simulation results are presented and summarized.

Funding Agency

Footnotes

I have read and accept the Privacy Policy Statement

Yes

Primary author: WU, Jian (Institute of High Energy Physics)

Co-authors: LI, Xiao (Institute of High Energy Physics); LIU, Yang (Institute of High Energy Physics)

Presenter: WU, Jian (Institute of High Energy Physics)

Session Classification: Thursday Poster Session

Track Classification: MC6: Beam Instrumentation, Controls, Feedback and Operational Aspects:
MC6.T04: Accelerator/Storage Ring Control Systems