



Contribution ID: 154 Contribution code: THPT64

Type: **Poster Presentation**

The slow extraction feedback system at HIRFL-CSR

Thursday, October 23, 2025 5:10 PM (20 minutes)

The slow extraction feedback system is built at HIRFL-CSR, Lanzhou. It is an auto adjusted feedback system based on the predicted value from DCCT at CSRm. The TMIC with the ability of online monitoring spill structure and beam profile is equipped at the terminal. The 10 kHz intensity signal is fed into the electronics of RFKO with a 1 kW power amplifier. The system is operated at July, 2025. In the commissioning, the beam is strongly stable at the initial period is found by the feedback system. By adjusting the sextupole ramping, the duty factor of the spill is increased from 80% to 90%. Further work is discussed with beam dynamic fellows to apply the feedback system sub 1E6 pps.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Authors: LIU, Tong (Institute of Modern Physics, Chinese Academy of Sciences); GU, Kewei (Institute of Modern Physics, Chinese Academy of Sciences); ZHU, Guangyu (Institute of Modern Physics, Chinese Academy of Sciences); LI, ZhiXue (Institute of Modern Physics, Chinese Academy of Sciences); QIU, Xiaoxuan (Institute of Modern Physics, Chinese Academy of Sciences); LI, Lili (Institute of Modern Physics, Chinese Academy of Sciences); TIAN, Ruixia (Institute of Modern Physics, Chinese Academy of Sciences); Mr XIE, Hong Ming (Institute of Modern Physics, Chinese Academy of Sciences); WU, Junxia (Institute of Modern Physics, Chinese Academy of Sciences); ZHANG, Yong (Institute of Modern Physics, Chinese Academy of Sciences); JING, Long (Institute of Modern Physics); LI, Ning (Institute of Modern Physics)

Presenter: LIU, Tong (Institute of Modern Physics, Chinese Academy of Sciences)

Session Classification: THPT poster session

Track Classification: WGE: Beam Instrumentation, beam Interaction and AI technology