



Contribution ID: 92 Contribution code: TUP092-THA

Type: **Poster Presentation**

Adaptive beam current feedback system at the Shanghai Soft X-ray FEL facility

Tuesday 20 August 2024 20:40 (20 minutes)

Despite the good short-term performance of electron beam control, the long-term stability and control accuracy of the particle beams still limit the performance and application range of the FEL due to the thousands of coupling parameters as well as the uncertainty and time-varying nature of the electron distribution generated by the photocathode. Many challenges are still faced when confronted with the precise control of the particle beams in the long term. This paper is to present our research efforts on the adaptive beam feedback system and to show how the system performs in the SXFEL facility.

Footnotes

Funding Agency

Author: LUO, Hang (Shanghai Advanced Research Institute)

Co-authors: GU, Duan (Shanghai Advanced Research Institute); ZHANG, Kaiqing (Shanghai Synchrotron Radiation Facility); LIU, Tao (Shanghai Advanced Research Institute); WANG, Zhen (Shanghai Advanced Research Institute)

Presenter: LUO, Hang (Shanghai Advanced Research Institute)

Session Classification: Poster session

Track Classification: Electron diagnostics, timing, synchronization & controls