

eeFACT 2025 - 70th ICFA Advanced Beam Dynamics Workshop on High Luminosity Circular e+e-Colliders



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High current-related issues in KEKB/SuperKEKB RF operation

Thursday 6 March 2025 09:30 (30 minutes)

SuperKEKB accelerator is one of the world's highest luminosity collider with electron-positron asymmetric collision, which is aiming at 10 times higher luminosity than that KEKB achieved. In order to obtain the target luminosity, it is designed to store the unprecedented high current beams of 2.6 A and 3.6 A in the electron and positron rings, respectively. In this talk, concerns about RF operation for high current beam storage, which are based on the KEKB and SuperKEKB operation, will be reviewed, for example, about heavy beam-loading, coupled bunch instabilities, bunch-gap transient issues, and so on. Mainly, accelerating mode-related issues will be presented. The cures for the concerns will be also introduced.

Footnotes

Funding Agency

I have read and accept the Privacy Policy Statement

Yes

Author: KOBAYASHI, Tetsuya (High Energy Accelerator Research Organization)

Presenter: KOBAYASHI, Tetsuya (High Energy Accelerator Research Organization)

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