

# eeFACT 2025 - 70th ICFA Advanced Beam Dynamics Workshop on High Luminosity Circular e<sup>+</sup>e<sup>-</sup> Colliders



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## Effect of Bunch Feedback system to the luminosity of e<sup>+</sup>e<sup>-</sup> collider

*Monday 3 March 2025 16:40 (30 minutes)*

The bunch-by-bunch feedback system is now an key function in high-current, multi-bunch storage rings to suppress coupled-bunch instability and/or to reduce the effects of injection vibration. In high-luminosity e<sup>+</sup>e<sup>-</sup> colliders such as SuperKEKB, strong beam-beam interactions occur due to collisions, so the side effects of the feedback system can have a large impact on the luminosity. In this presentation, we will present the principle and configuration of the bunch feedback system, the cause of the side effects of the feedback system, and how to suppress them.

### Footnotes

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Yes

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