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SRF Operations, microphonic control at CBETA

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The Cornell BNL ERL Test Accelerator (CBETA) is the first machine which achieved multi-pass energy recovery employing superconducting cavities. While SRF cavities operated with a narrow bandwidth reduce the overall power consumption of the main linac, maintaining stable field required for energy-recovery in the presence of microphonics detuning becomes a challenging task. We discuss the crucial aspect of suppression of microphonics detuning aimed at achieving a relative amplitude stability of 10^{-4} and phase stability of 0.1 degrees. We also describe our linac commissioning and operations experience at CBETA explaining the current status and next steps.

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