

HOM absorbers, HOM heating, and current limits, including measurements for CBETA

Monday, 1 October 2018 16:00 (30 minutes)

The Cornell-BNL ERL Test Accelerator (CBETA) is a new multi-turn high current energy recovery linac currently under construction at Cornell University with a stated goal of 40 mA CW through the injector and 320 mA through the main linac. Higher Order Modes (HOMs) excited by the high current beam will be damped using beamline absorbers and the resulting energy will be converted to heat. In this talk, I will describe the design of these absorbers and their measured performance in both the SRF linacs. Finally, I will explain how the heating restricts the maximum injection current of CBETA to 40 mA.

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Session Classification: HOM Measurements, Beam Effects, and Diagnostics