

FERMILAB BOOSTER DIAGNOSTICS, MONITORS, AND SOFTWARE FOR OPERATIONAL CONTROL OF RESIDUAL RADIATION

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Abstract

The FNAL Booster Accelerator delivers about $1 \cdot 10^{17}$ 8 GeV protons/hour. The Booster present cycling rate is 8 Hz but can go as high as 10 Hz with plans to run at 15 Hz. Booster's current operations and future plans required upgrades to most of Booster 30 year old diagnostic hardware and software. Beam quality as well as beam intensity and cycle repetition rate first became an issue when the neutrino experiment BooNE started in 2002. Since then MI slip stacking and continuation of running to MiniBooNE continues to push Booster diagnostics and software upgrades. Control of residual radiation while increasing the Booster throughput over 10 fold has been successful but the work is not done.

**CONTRIBUTION NOT
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