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ALS Transverse Multibunch Feedback System

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Publication Date 1992-12-01

LBL-33269a ESG-231

<u>ALS Transverse Multibunch Feedback System</u>, W. BARRY, J. M. BYRD, J. N. CORLETT, J. HINKSON, G. R. LAMBERTSON, <u>Lawrence Berkeley Laboratory</u> — Calculations of transverse coupled bunch growth rates in the Advanced Light Source (ALS), a 1.5 GeV electron storage ring for producing synchrotron radiation, indicate the need for damping via a feedback (FB) system. We present the design of a bunch-by-bunch transverse multibunch FB system which damps the motion of individual bunches. The maximum bunch frequency is 500 MHz, requiring that the FB system have a broadband response of at least 250 MHz. We describe in detail the choice of broadband components such as kickers, power amplifiers, and electronics. We also report preliminary measurements of the system.

* This work was supported by the Director, Office of Energy Research, Office of Basic Sciences, Materials Sciences Division, of the U.S. Department of Energy under Contract No. DE-AC03-76SF00098.

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Class: 2.2.4 (Beam Feedback Systems) Presentation Preference: Oral