

Operational Experience At The Advanced Light Source*, A. JACKSON, LBNL - With the successful commissioning of the longitudinal and transverse coupled-bunch feedback systems at the Advanced Light Source (ALS)^{1,2}, the nominal (and very challenging) parameters of the storage-ring beam (emittance, bunch length, etc.) have been met at the full current of 400 mA. In this paper we describe measurements that confirm the beneficial effects of small emittance and energy-spread for the users of both undulator and bend-magnet radiation, and discuss some unexpected heating problems created by the high peak currents associated with running in this mode.

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1 W. Barry, et al., "Transverse Coupled-Bunch Feedback in the ALS," Proc. Fourth European Particle Accelerator Conference, England 1994.

2 D. Teytelman, et al., "Operation and Performance of a Longitudinal Feedback System Using Digital Signal Processing," Proc. Beam Instrumentation Workshop, Canada, 1994.