

Abstract Submitted
for the 4CF06 Meeting of
The American Physical Society

Optimized controller design for an ECDL locked to at optical cavity JAMES ARCHIBALD, BRIAN NEYENHUIS, MATTHEW WASHBURN, W. SAM WEYERMAN, SEAN WARNICK, DALLIN DURFEE, Brigham Young University — We have performed a study of optimized feedback control of an external-cavity diode laser (ECDL) locked to a high-finesse optical cavity. We have measured the response of the laser to current modulation and developed a mathematical model of our laser. Using this model, we have calculated optimized designs for the feedback controller which keeps the laser locked to the optical cavity.

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Date submitted: 11 Sep 2006

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