

LSC Six-Month Progress Report

Organization University of Rochester LIGO Group

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During this period we have been active in two directions:

a) Fitting the data obtained in October and December 2002 on sideband injection and parametric conversion at the Hanford 4K interferometer.

b) Possible searches using the LIGO interferometers for coherent fields that couple to two photons.

Results from activity (a) have been posted on the DCC/T030163-00-D. This work is continuing and is nearing completion. We have also implemented in MATLAB a model for determining the frequency response of the IFO to mirror motion. We have used this model successfully and the results will be posted on the DCC shortly.

Activity (b) has so far been theoretical, and has been documented in an internal note that is appended.

A proposal was prepared and submitted to the NSF for support of our participation in LIGO. We also made presentations at the August LSC meeting held in Hanover (Documents G030521-00-A and G030522-00-Z).