Abstract Submitted for the APR05 Meeting of The American Physical Society

Search for inspiraling black holes with the LIGO gravitational wave detectors ALEXANDER DIETZ, Louisiana State University, LIGO SCIENTIFIC COLLABORATION — The LIGO Scientific Collaboration has completed several science runs collecting data with the LIGO gravitational wave detectors in the Livingston and Hanford observatories. We will report on the progress made in the analysis of the second science run for inspiraling black holes. The data analysis is done using matched filtering techniques, using a family of templates that generalizes known approximate waveforms for inspiraling black holes[1]. Test signals have been added offline to the data to test the analysis technique and to compare the recovered and the injected black hole parameters. Also a method is discussed to estimate the accidental background trigger rate.

A. Buonanno, Y. Chen, M. Vallisneri, Phys. Rev. D67 (2003) 024016

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Date submitted: 14 Jan 2005 Electronic form version 1.4