

Charge for LSC Detection Committee
Peter Saulson, revised 24 February 2004

The role of the LSC Detection Committee will be to provide a forum for discussion of various issues relating to the statistics of gravitational wave data analysis and especially of how to establish the reliability of a detection of gravitational wave signals.

The committee members will be appointed by the LSC Spokesperson in consultation with the Analysis Coordinator and the chairs of the various Search Groups.

More specifically, the LSC Detection Committee will:

1. Serve as the forum for establishing the LSC's procedures for how we will weigh evidence for the detection of gravitational wave signals. Issues for discussion include: requirements on statistical confidence, use of diagnostic channels, checks of software, procedure for cross-checks with other gravitational wave observations, connection to astrophysical theory or other observations.
2. Consider statistics issues arising from the LSC's search for gravitational waves using the LIGO and GEO interferometers, and suggest policies or standards where appropriate. Examples: standards on choice of confidence intervals for reporting upper limits, policies on the use of Frequentist and/or Bayesian interpretations, and drafting the LSC's response to questions on statistical matters coming from bodies outside the LSC.