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Search for the Standard Model Higgs boson in e^+e^- interactions at $\sqrt{s} = 189$ GeV

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Abstract

A search for the Standard Model Higgs boson is carried out on 176.4 pb^{-1} of data collected by the L3 detector at a center-of-mass energy of 189 GeV. The data are consistent with the expectations of Standard Model processes and no evidence of a Higgs signal is observed. Combining the results of this search with those at lower center-of-mass energies, a lower limit on the mass of the Standard Model Higgs boson of 95.3 GeV is set at the 95% confidence level.

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