

Higgs Search at LEP

Monday, 13 March 2006 09:00 (20 minutes)

This talk presents the legacy of the four LEP experiments ALEPH, DELPHI, L3 and OPAL in the field of the search for Higgs bosons which are predicted within the framework of the Minimal Supersymmetric Standard Model (MSSM). It will focus on the search for neutral Higgs bosons. The data of the four collaborations are statistically combined and show no significant excess of events which would indicate the production of Higgs bosons. Hence, limits on model-independent quantities and on model parameters are derived. For the CP-Conserving MSSM models, stringent limits in the parameter space can be set. For CP-Violating scenarios, regions in the MSSM parameter space with light Higgs boson masses (<50 GeV) exist, for which there is only weak or no exclusion. For these scenarios, prospects for the LHC and the ILC will be shown.

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