

Figure 1:

Left: the scenery of e^+e^- collisions as a function of energy.

LEP1 was “sitting” on the huge Z^0 resonance (courtesy U.Amaldi).

Right: a four jet event.

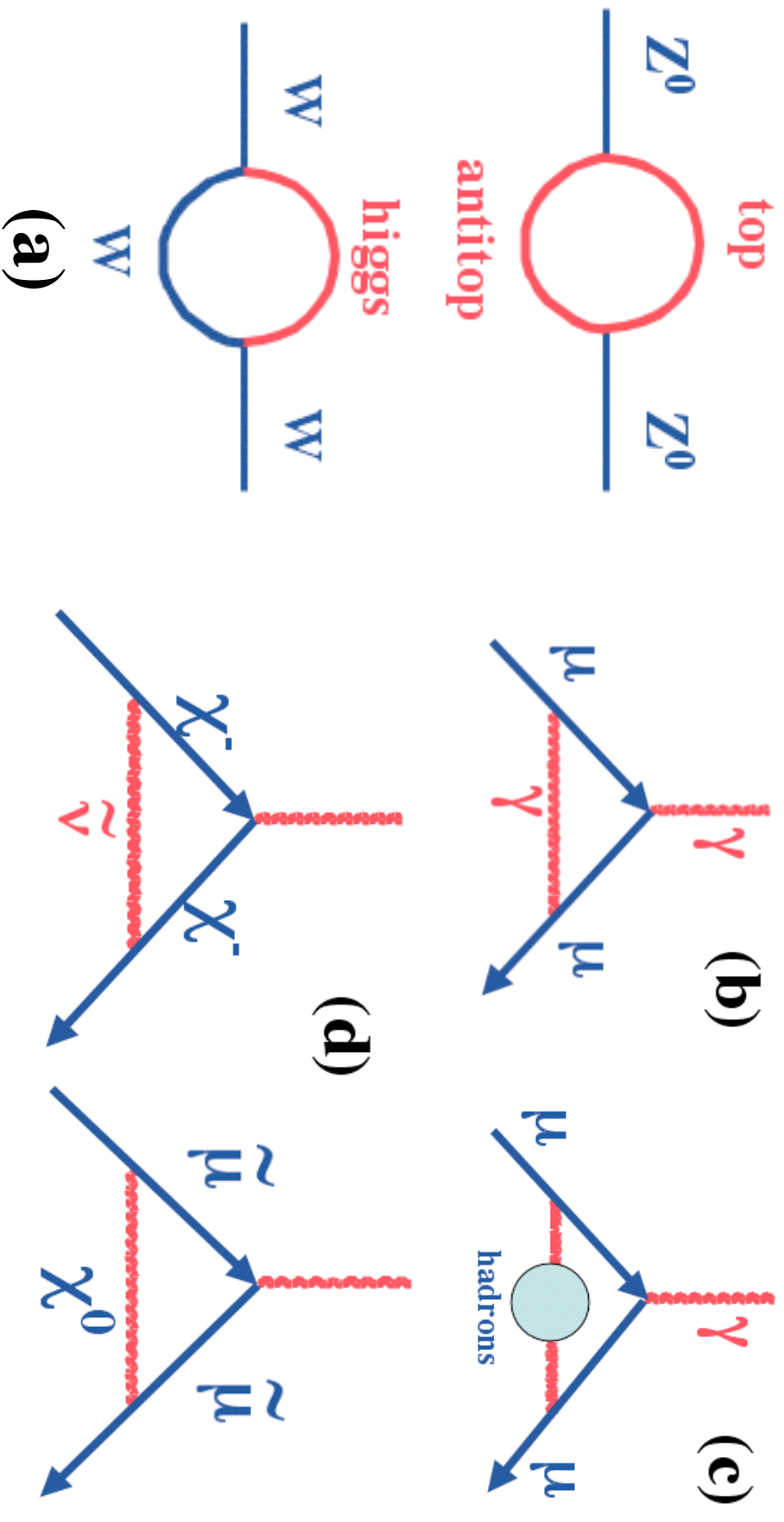


Figure 2: some relevant loop diagrams

- (a) SM diagrams contributing to the EW bosons masses
- (b) the main contribution to $g-2$ of the muon
- (c) the hadronic correction to $g-2$ of the muon
- (d) Possible SUSY contributions to $g-2$ of the muon

From C. Quigg

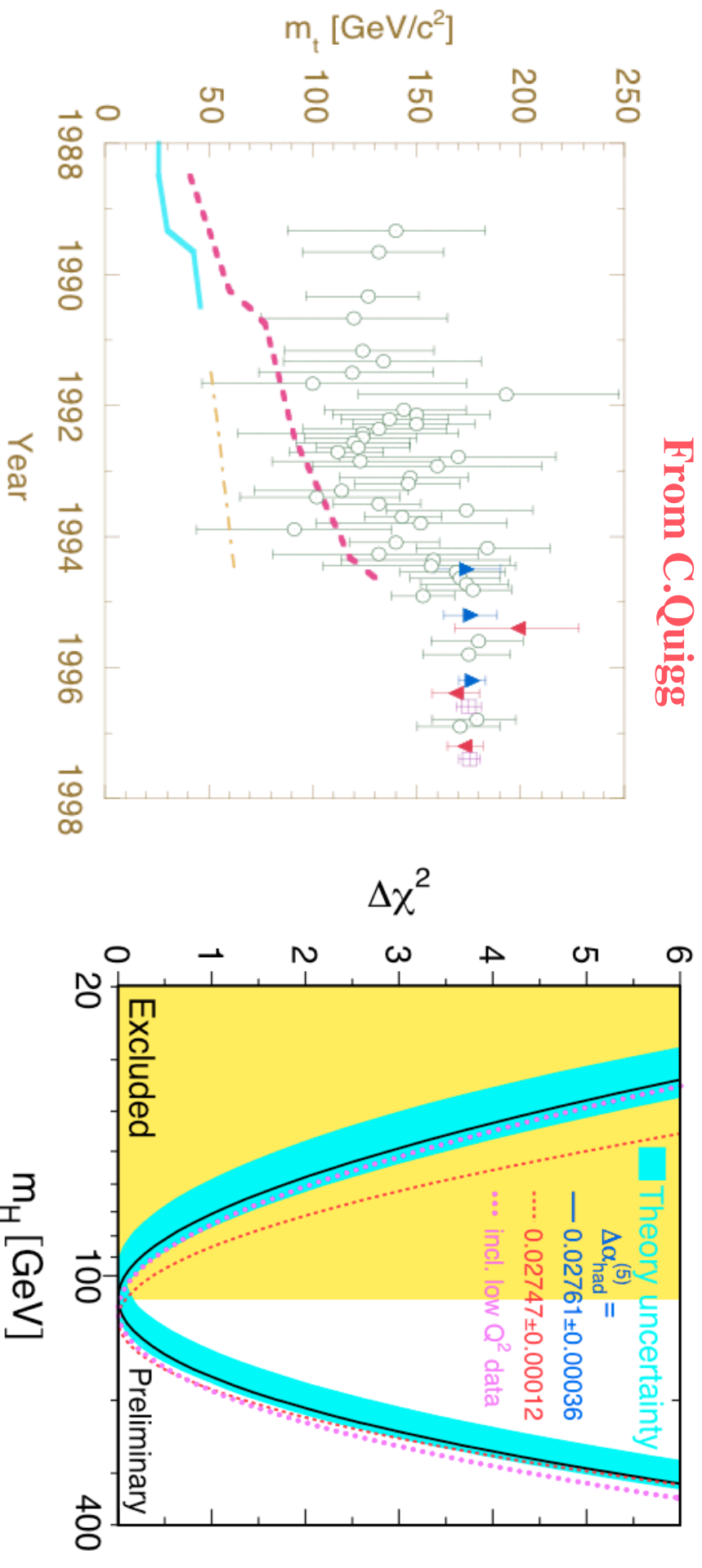


Figure 3 -- left: the top mass from indirect LEP measurements (open circles) and from the direct Tevatron measurements (color triangles) right: the preferred region for the SM Higgs mass (near the bottom of the χ^2 curve) deduced from electroweak measurements.

2000

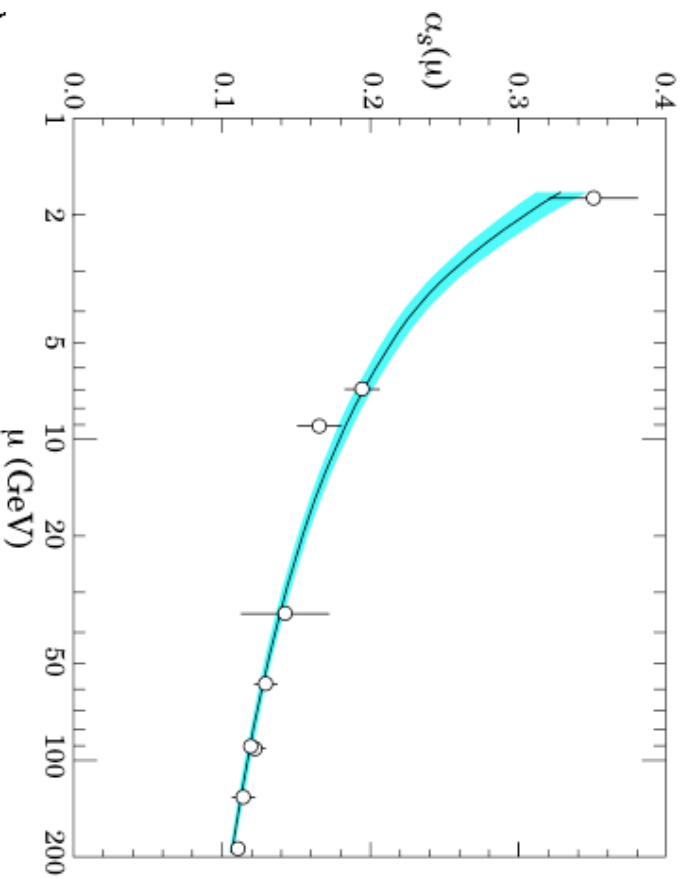
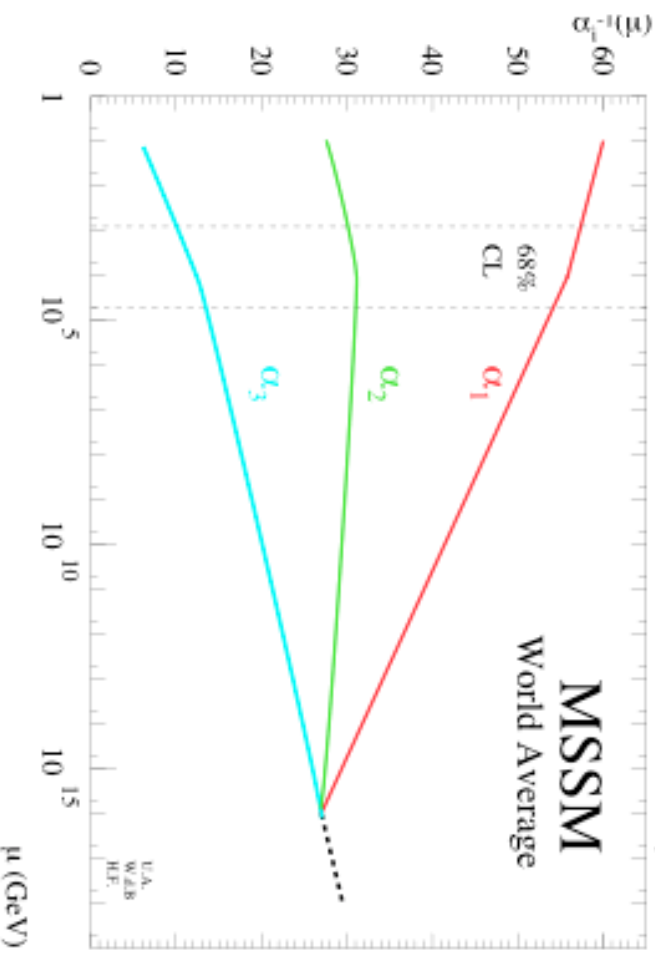
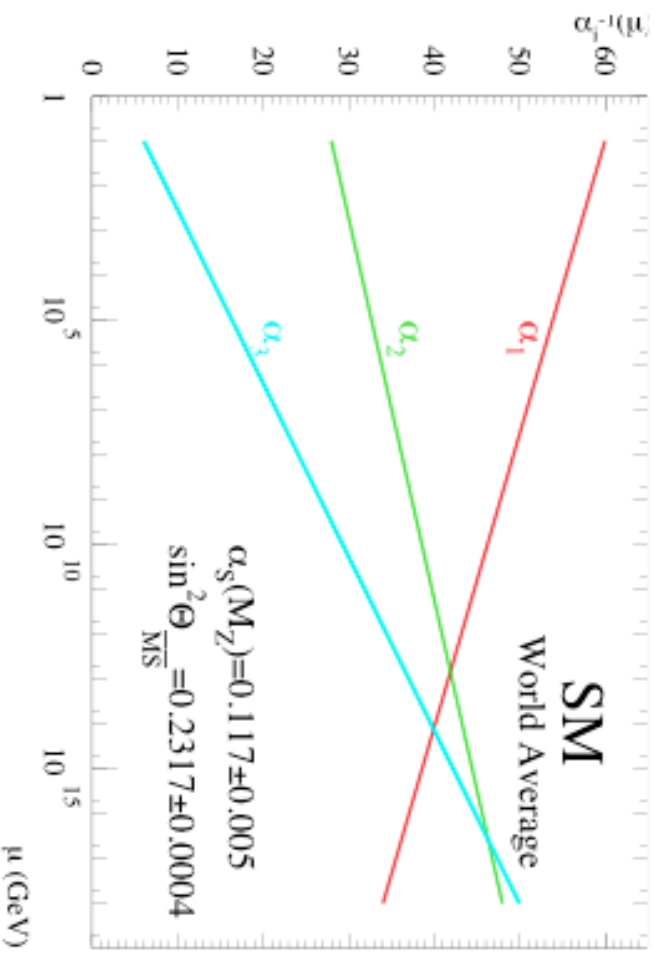


Figure 4 -- left: the evolution of the strong coupling constant with the energy scale

right: the convergence of the SM coupling constants, approximate in the SM (upper figure), exact in SUSY (lower figure).

One should distinguish this smooth running of couplings from the evolution of the intensity of the interaction with the energy scale, depending on the mass of the exchanged boson.



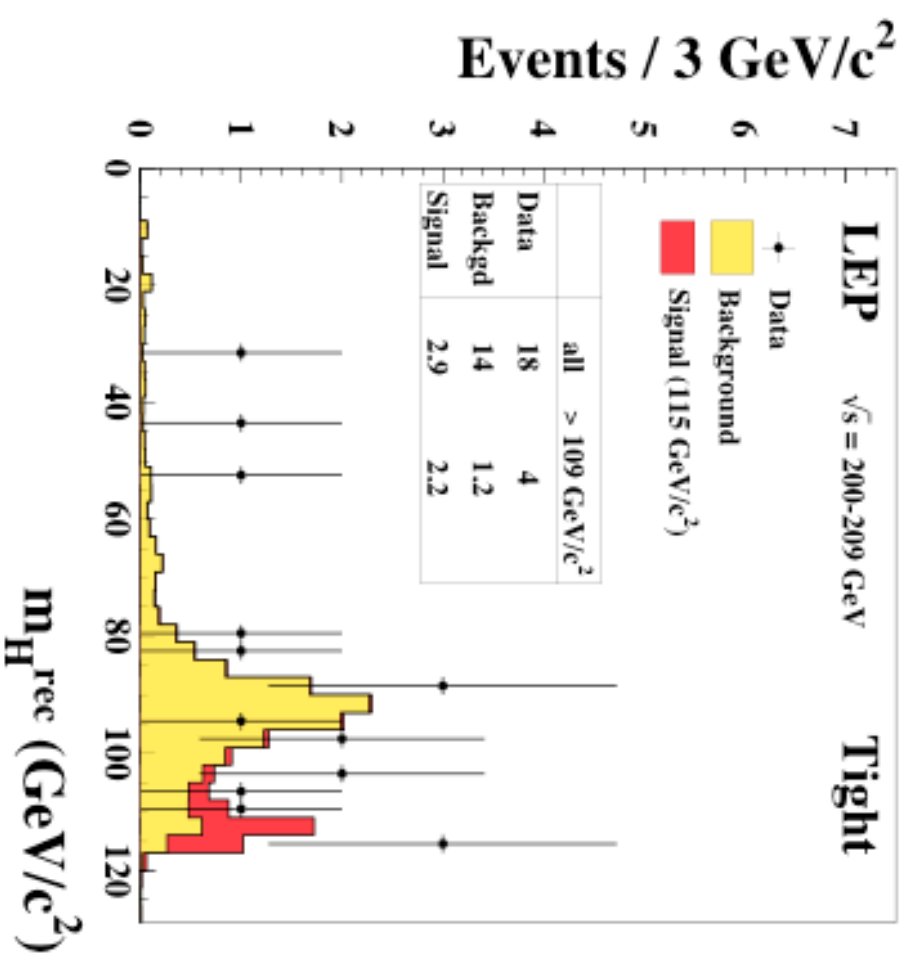
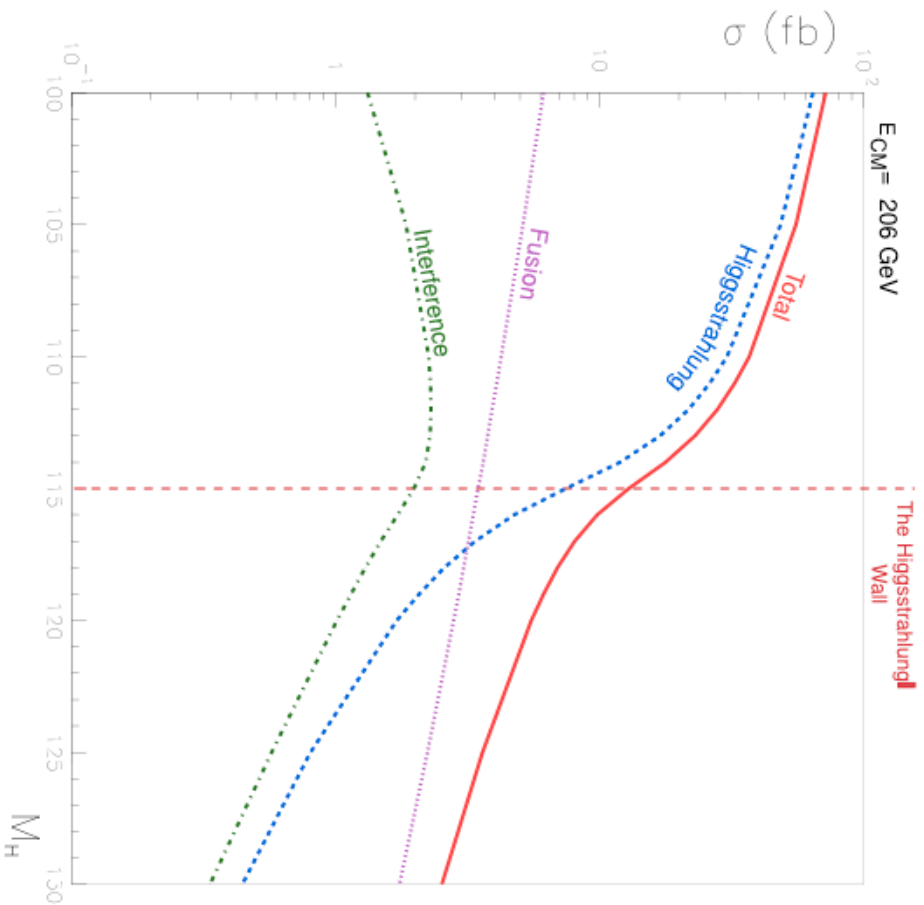


Figure 5: Higgs search at LEP2000

left: the Higgs production cross section at the maximum CM energy (from E.Gross and A.L.Read)

right: the final mass spectrum recorded at LEP2000

SCALAR LEPTOQUARKS WITH $F=0$ ($\tilde{S}_{1/2,L}$)

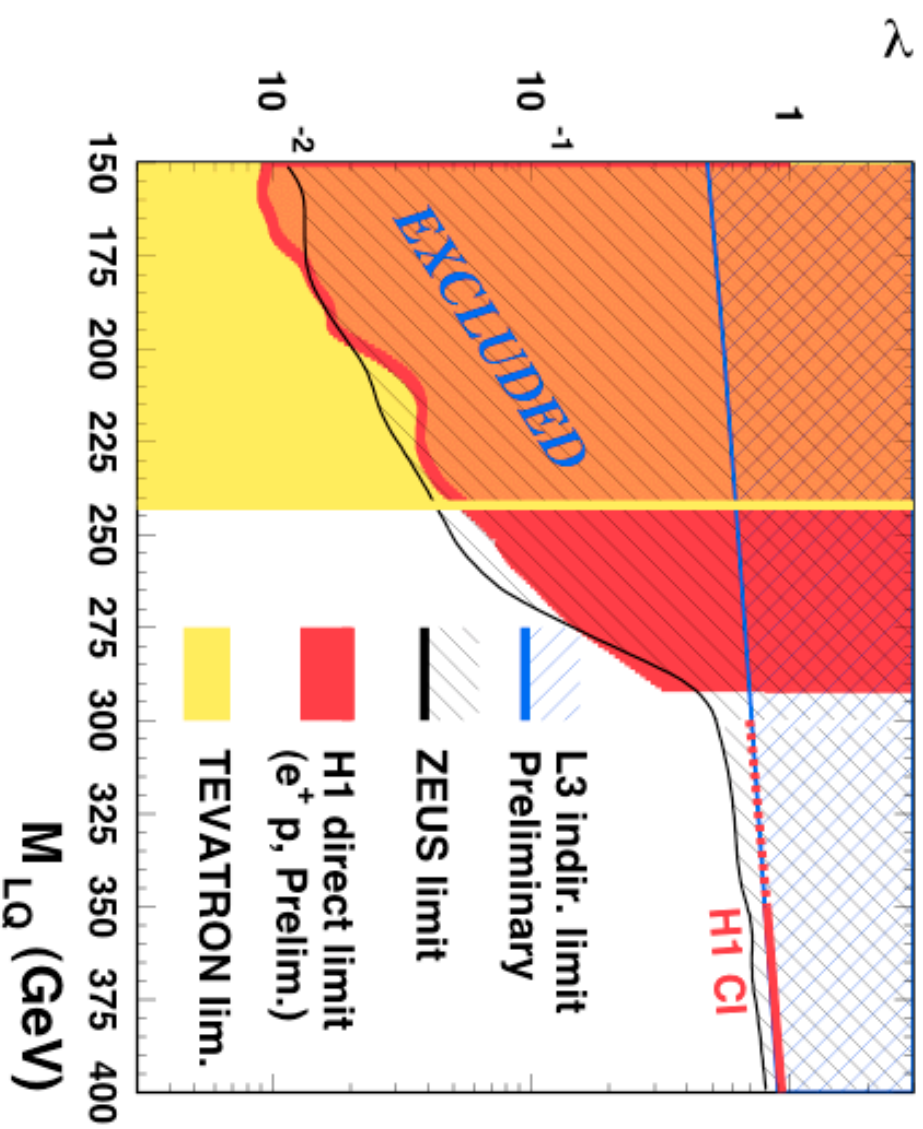


Figure 6: limits on leptoquarks at LEP and other machines

Channel	$m(l) >$	ΔM	
$\tilde{\nu}$, E.W. measurements	43.7 GeV	-	ADLO
$\tilde{e} \rightarrow e\chi_1^0$	99 GeV	10 GeV	ADLO
$\tilde{\mu} \rightarrow \mu\chi_1^0$	95 GeV	10 GeV	ADLO
$\tilde{\tau} \rightarrow \tau\chi_1^0$	85 GeV	10 GeV	ADLO
$stop \rightarrow c\chi_1^0$	95 GeV	20 GeV	ADLO
$stop \rightarrow bl\tilde{\nu}$	96 GeV	20 GeV	ALO
$sbot \rightarrow c\chi_1^0$	94 GeV	20 GeV	ADLO
$\tilde{g} \rightarrow jets + E_T^m$	195 GeV	-	CDF
$\chi_1^\pm \rightarrow W\chi_1^0$	103.5 GeV	large m_0	ADLO
$\chi_1^\pm \rightarrow W\chi_1^0$	92.4 GeV	small ΔM	ADLO

Table 1: the limits set on SUSY particles