



Italian groups have contributed to the construction of the subdetectors shown in colours

□ Italian groups in L3 :

Bologna Firenze Milano Napoli Perugia Roma Salerno
70 Physicists (~ 17% of the collaboration)

□ Responsibilities of italian groups:

- DAQ Coordination; Level 3 Trigger; Energy Trigger.
- Subdetectors: Silicon Microvertex Detector, Muon-Filter, EGAP, Forward Muon Trigger RPCs, Hadron Calorimeter HV System.
- L3 analysis coordination; coordination of New Particles and Z-pair Production analysis groups
- L3 computing management.

$\int Ldt$ 176.4 pb⁻¹ at mean CM energy of 188.6 GeV

Analyses with large contributions by italian groups:

Measurements

- Measurement of W boson properties
 $m_W = 80.43 \pm 0.11$ GeV Preliminary
- Measurement of the process: $e^+e^- \rightarrow ZZ$
 $\sigma = 0.74^{+0.15}_{-0.14}$ pb (first publication at LEP)
- Measurement of R_b
 $R_b = 0.2174 \pm 0.0015$ (stat.) ± 0.0028 (sys.)
- Two photon physics
 η_c meson produced in two-photon collisions

Searches for new particles (published or submitted):

- SM Higgs boson excluded at 95% C.L. below 95.3 GeV
- MSSM lightest neutralino excluded at 95% C.L. below 32.5 GeV

