

# Contrast with UA1/UA2

- Glashow Wienberg Salam: Phys Rev Lett 19, 1264 (1967)
  - Predictions in terms of (then) unknown  $\theta_W$ :
  - $M_Z > 75 \text{ GeV}/c^2$ ,  $M_W > 35 \text{ GeV}/c^2$
- By 1982  $\theta_W$  much constrained, giving:
  - $M_Z \approx 92 \pm 2 \text{ GeV}/c^2$ ,  $M_W \approx 82 \pm 2 \text{ GeV}/c^2$
- CERN able to build UA1+UA2 (~1980) knowing the above.
- In 1983 UA1+UA2 observe W and Z at expected masses:
  - $M_Z \approx 95 \pm 3 \text{ GeV}/c^2$ ,  $M_W \approx 81 \pm 5 \text{ GeV}/c^2$