Joint CDF/D0/Theory Top Mass Workshop

11-October-2005

Agenda

0900-1030: Introduction
1030-1200: Jet Energy Scale
1200-1330: Lunch
1330-1530: Modeling Uncertainties
1530-1600: Coffee
1600-1700: Conclusions

Welcome!

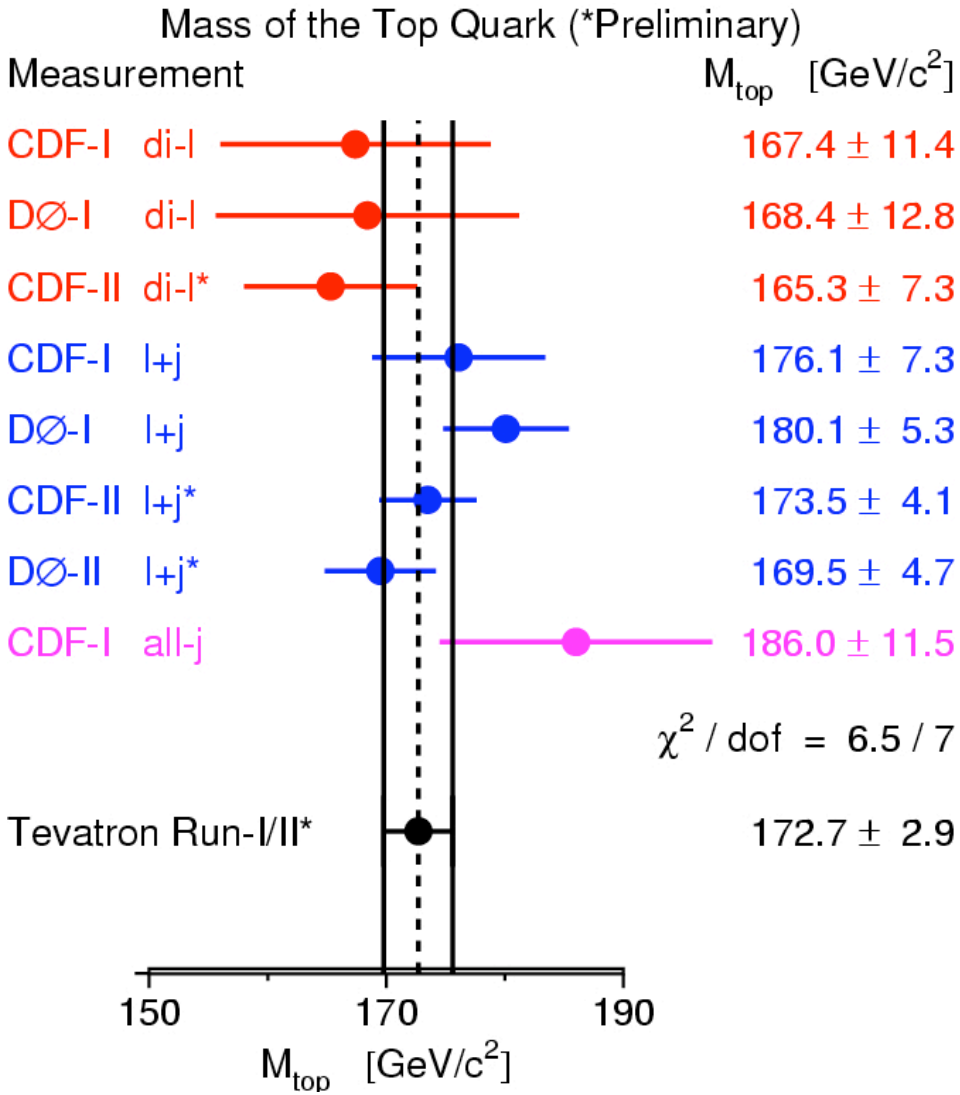
- Thanks for coming
- Thanks to all the speakers
- Thanks to Barb Perrington
- Thanks to CDF & D0

  (for footing the bill)

Why have a workshop?

- ΔM_{top}(world) syst limited
- Further progress requires that all of us the speak the same language
- Workshop is just the start of this dialogue

Status since August 2005



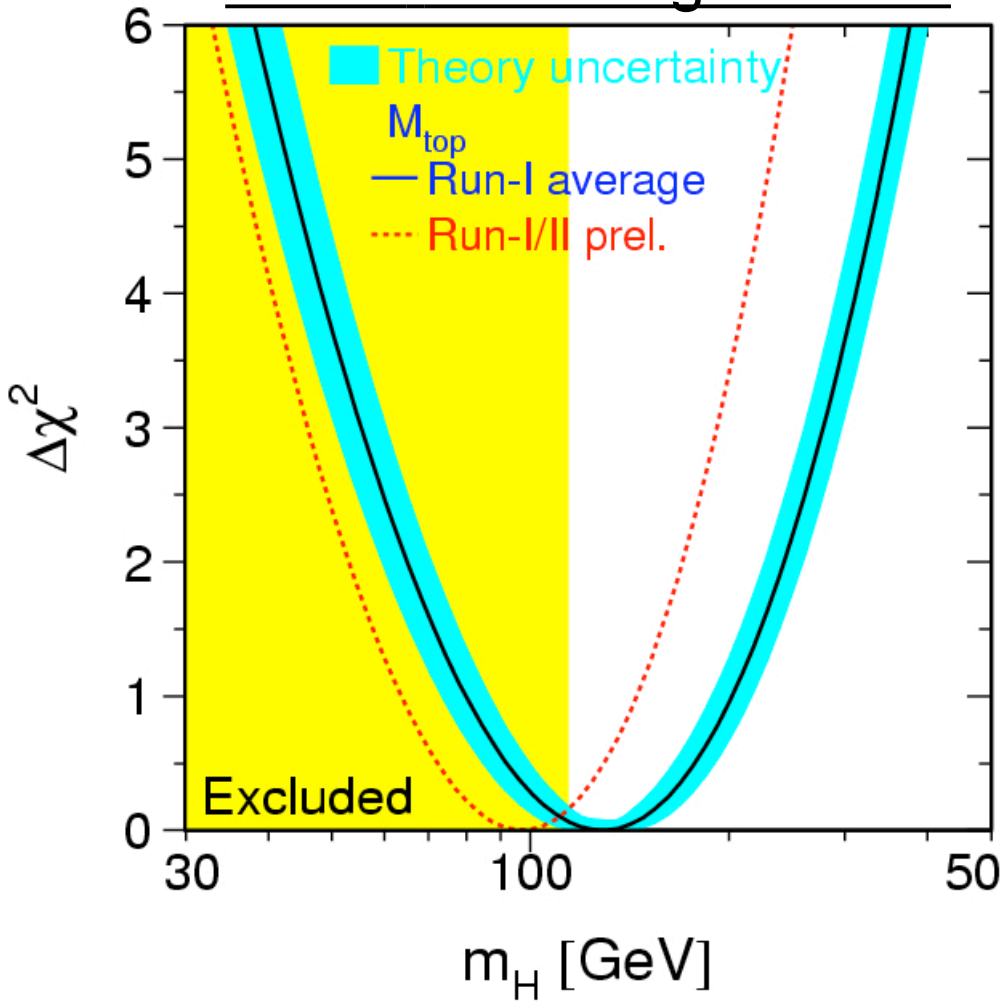
- 30% reduction in ΔM_{top}

$$M_{top}^{old} = 178.0 \pm 4.3 \text{ GeV}/c^2$$

$$M_{top}^{new} = 172.7 \pm 2.9 \text{ GeV}/c^2$$

- Already systematics limited
  - Δ(stat) = 1.7 GeV/c^2
  - Δ(syst) = 2.4 GeV/c^2
- Affects SM EWK fit
  - ΔM_H now limited by ΔM_W
- Run 2 results with 350 pb^{-1}
  – we'll exceed expectations

Status since August 2005



$$M_H^{old} = 114^{+69}_{-49}\ \mathrm{GeV}/c^2 \quad (< 260\ \mathrm{GeV}/c^2\ @95\%\mathrm{CL})$$

$$M_H^{new} = 91^{+45}_{-32}\ \mathrm{GeV}/c^2 \quad (< 186\ \mathrm{GeV}/c^2\ @95\%\mathrm{CL})$$

Details

- Coffee, cookies, & soft drinks are provided
- Lunch is not provided
- Join us for drinks at the UC afterwards (not provided)