

- It became obvious (again) that **theory uncertainties** can be the limiting factor  $\Rightarrow$  **always take them into account consistently!**
- **EWPO**: full three-loop calculations necessary
  - $\rightarrow$  any new conceptual problems?
  - $\rightarrow$  QCD not leading . . .
- **EWPO**:  $\Delta\rho$  at five-loop necessary?
- $\Delta\alpha_{\text{had}}$  could be the limiting factor
  - $\rightarrow$  what are the real prospects?
- $m_t^{\overline{\text{MS}}}$  better suited for QCD calculations
  - $\rightarrow$  what about EW corrections?

- **EFT:** calculations have to be redone. Possible, but work
  - how complicated is it really?
  - tools for that calculations?
  - rely on LHCHXSWG
  
- **EFT:** “only”  $D = 6$ , no  $D = 8$ , “only interference with SM”
  - good enough for ILC/FCC-ee precision?
  - range of applicability?

- $m_t$  from  $e^+e^-$  machines:
  - extraction clean, 15 – 20 MeV
  - systematics! Differences?
  - peak position from cross section fit  $\lesssim 50$  MeV, hard to improve??
  - conversion: 7 – 23 MeV
  - $\delta\alpha_s = 0.001 \Rightarrow 70$  MeV  $\rightarrow$  crucial?
  
- $m_b$  from lattice:
  - agreement between different groups? Not likely
  - redo BR analysis for “best” and “worst” precision
  - compare to ILC/FCC-ee target
  - derive target for lattice, focus their discussions :-)