BASIC TAU PROPERTIES

1. MASS?

$\sim 10^{-4}$ precision

- $m_{BES} = 1776.96 \pm 0.20_{ST} \pm 0.21_{SY}$ MeV
- appears as m_τ (5) in "universality" tests
- needs threshold running; others limited to $\sim \pm 1$ MeV

improvement welcome!

- CLEO-c? 2-3 months $\Rightarrow \pm 0.1_{COMB}$

2. SPIN?

- $J = 1/2$; fermion
- threshold turn-on; studied in 70's
- fits in Michel formalism

done!

3. $I_3^{wk} = 1/2$?

- part of weak isodoublet?
- DONUT: has confirmed $\nu_\tau N \to \tau^- X$
- LEP: couplings to Z^0, W just like e and μ

done!