Perspective on the Future of Accelerator Based HEP

• Pace of progress in frontier accelerators measurably slowed (1)

• Technical possibilities for future frontier accelerators are: (World Perspective)

**LUMINOSITY FRONTIER**
1. Super Lumi b factory $10^{35} – 10^{36}$; > 5 years
2. Tau-charm factory $>10^{33}$; > 4 – 5 years
3. NuFactory ~ 5 yr for CDR, > 4 - 5 year for construction
4. ZE9 > 6 yr. to beam

**ENERGY FRONTIER**
1. Linear e+e- Collider > 7 - 8 years
2. MuMu Collider ~ “15 +” years
3. VLHC R/D >5 yr. + design >5 yr. + construction > 10

• What to do?
  √ select a sub-set and do R&D in parallel
  √ raise priority of future
  √ devote more intellectual resources ($ with)
  √ use intellectual and material resources more efficiently when possible
    √√ e.g. selection process among 4 LC candidates & all focus on one approach
  √ improve vision shared w. patrons
THE ENERGY FRONTIER
(Prepared in 2000)

Constituent Center-of-Mass Energy (GeV)

Year of Physics

- Hadron Colliders
  - TeV I
  - SppS
  - TRISTAN
  - PETRA, PEP
  - CESR
  - VEPP IV
  - SPEAR II
  - SPEAR, DORIS, VEPP III
  - ADONE

- e^+e^- Colliders
  - ISR
  - SLC, LEP

- PRIN - STAN, VEPP II, ACO

- Completed
- Under Construction
- In Planning Stage