

## MAIN TRACKER TPC

## TDR OUTLINE (for discussion)

## • INTRODUCTION

Philosophy Granul., Bckgd,  $S(1/p)$ ,  $dE/dx$ , etc

Ref. "Reactions"

Higgs couplings (SM)  $\rightarrow S(1/p)$

top-Yukawa, higgs-self  $\rightarrow$  en. flow

Alternative Technologies  $\rightarrow$  LC Notes (granul.,  $dE/dx$ )

Readout chambers (Wires, Gem, Micromegas, MGWC)  
 $\rightarrow$  LC Notes

Electronics (new Star, ATWD)  
 $\rightarrow$  LC Notes

## • CDR VERSION

1 Table

## • SYSTEM DESIGN OF IMPROVED TPC

Sector Mechanics (w/ Gem)

Pad Structure (1.5 M channels)

Electronics (new Star or ATWD)

FC / Laser ( $\sim$  Star)

Cooling

Gas

Calibration, Montage

## • PERFORMANCE

$S(1/p)$ ,  $S(\theta)$ ,  $S(\phi)$

$dE/dx$

Background

LC Notes

## • COST

# TPC QUESTIONS (for discussion)

## WHAT'S AVAILABLE

wire version (CDR)

## R & D

Gem Desy, Carleton, LBNL, Aachen, MPI, Karlsruhe

Micromegas Saclay, Orsay

MGWC Strasbourg

Magnet Saclay

Star Electronics Saclay, LBNL

New Electronics LBNL

LC Notes

## WHAT'S MISSING for the TDR

System Design

Sectors  
Pads  
Electronics  
Cooling  
Gas  
FC

LC Notes

## WHO'S WRITING WHAT?

LC Notes  $\Rightarrow$  RS compile chapter

## PHYSICS REACTIONS

See outline

## VERY PREL. COST ESTIMATE

From Mike Roman based on Star TPC

TPC 19.5 M\$

Electronics 5.8 M\$

25.3 M\$ w/o contingency