

CMS DETECTOR

Total weight : 14,000 tonnes
Overall diameter : 15.0 m
Overall length : 28.7 m
Magnetic field : 3.8 T

STEEL RETURN YOKE

12,500 tonnes

SILICON TRACKERS

Pixel ($100 \times 150 \mu\text{m}^2$) $\sim 1 \text{ m}^2 \sim 66\text{M}$ channels
Microstrips ($80-180 \mu\text{m}$) $\sim 200 \text{ m}^2 \sim 9.6\text{M}$ channels

SUPERCONDUCTING SOLENOID

Niobium titanium coil carrying $\sim 18,000 \text{ A}$

MUON CHAMBERS

Barrel: 250 Drift Tube, 480 Resistive Plate Chambers
Endcaps: 468 Cathode Strip, 432 Resistive Plate Chambers

PRESHOWER

Silicon strips $\sim 16 \text{ m}^2 \sim 137,000$ channels

FORWARD CALORIMETER

Steel + Quartz fibres $\sim 2,000$ Channels

CRYSTAL
ELECTROMAGNETIC
CALORIMETER (ECAL)
 $\sim 76,000$ scintillating PbWO_4 crystals

HADRON CALORIMETER (HCAL)
Brass + Plastic scintillator $\sim 7,000$ channels

