The Large Hadron Collider (LHC) will soon start collisions but plans are already advancing for an upgrade to about ten times the LHC luminosity in the superluminous-LHC (sLHC) project.

**p-type silicon strip technology: ATLAS07 test sensors**

Plots on the right show charge collection efficiency vs bias voltage for proton irradiation (right) and neutron irradiation (far right). Good ATLAS07 performance!!

Full Size Sensor Testing (99 mm$^2$)

Plots on the right show strip current (top), strip coupling capacitance (middle) and bias resistance (bottom) vs the strip number.

Alternative module integration concepts:

- Powering and readout are grouped for several modules and integrated in a stave (barrel) or petal (endcap)

An increase in pile-up of events per beam crossing from 20 to 400 and an increase of total fluence of particles will imply the need for the detectors to be replaced and technologically improved.