Paolo Giubellino
for the ALICE collaboration
"The ALICE Inner Tracking System"

The ALICE experiment has been designed to efficiently reconstruct and identify particles in a very wide range of momenta, from few tens of MeV to over 100 GeV. The need to handle the very large multiplicities expected in Nuclear Collisions at the LHC has led to a design centered on a large TPC embedded in a moderate magnetic field. The Inner Tracking system, conisting of six cylindrical layers of silicon
detectors, located at radii, $r =$ 4, 7, 15, 24, 39 and 44~cm and covering the rapidity range of $|\eta|<0.9$ for vertices
located within the length of the interaction
diamond ($\pm 1\sigma$), is optimised
for efficient track finding and high impact-parameter resolution.
It provide both tracking and identification capability, through
the measurement of specific energy loss in four of the layers.
Because of the high particle density, up to 80 particles per cm^2,
and to achieve the required impact parameter resolution,
pixel detectors have been chosen for the innermost two layers,
and silicon drift detectors for the following two layers. The
outer two layers, where the track densities are below
one particle per cm^2, will be equipped with double-sided silicon
micro-strip detectors.
The construction of the ALICE ITS is now nearing completion, and
it is time to draw a summary of the most relevant lessons learnt
during the life of the project, with a focus on system aspects, including
the last steps to be taken in integration and commissioning.

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