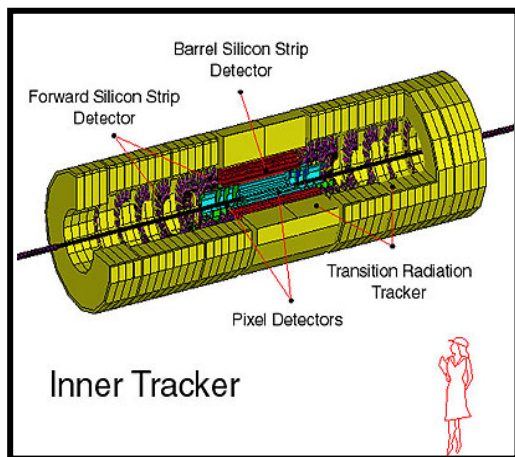
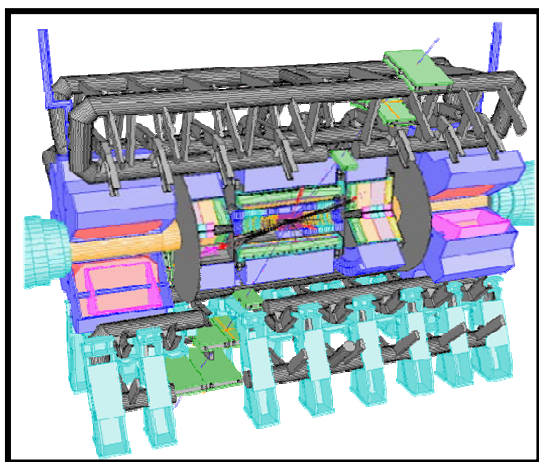
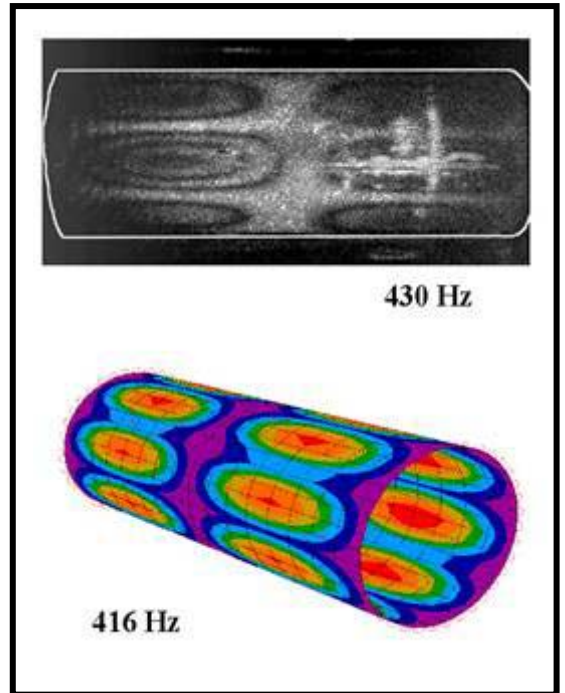


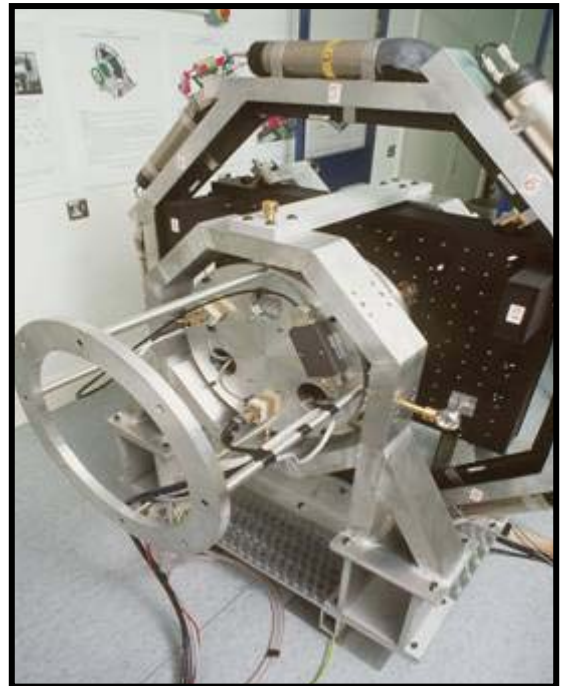
ATLAS is a general-purpose experiment for recording proton-proton collisions at the CERN Large Hadron Collider (LHC). The detector design has been optimized to cover the largest possible range of LHC physics: searches for Higgs bosons and alternative schemes for the spontaneous symmetry-breaking mechanism; searches for supersymmetric particles, new gauge bosons, leptoquarks, and quark and lepton compositeness indicating extensions to the Standard Model and new physics beyond it; studies of the origin of CP violation via high precision measurements of CP-violating B-decays; high precision measurements of the third quark family such as the top quark mass and decay properties, rare decays of B-hadrons, spectroscopy of rare B-hadrons and B-mixing.



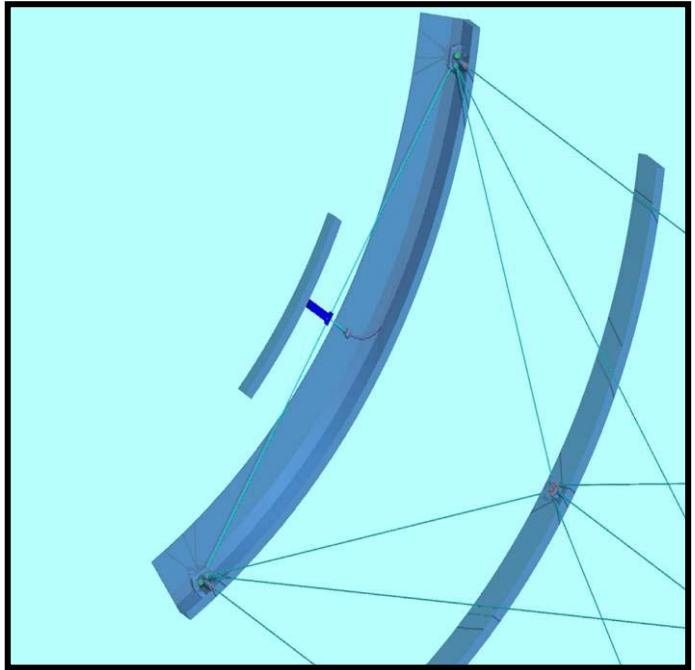
Three quarters of the SemiConductor Tracker (SCT) will be assembled in Oxford. FEA modelling of the carbon fibre support tube is compared with measurements using Electronic Speckle Pattern Interferometry (ESPI).



The positions of the silicon strips will be determined during assembly using beams of X-rays and the strips themselves as detectors.



The run-time survey will be carried out using Frequency Scan Interferometry (FSI) and a geodetic array of retroreflectors.



White light Interferometric Profiling Measurements (WhIPM) will be used to monitor distortions during assembly. The picture shows an interferogram of an FSI retroreflector. The fringes represent $1/2$ wavelength height profiles.

