

Introduction and general 3D sensor documentation

Introduction:

In January 2009, SLAC people met with Cinzia Di Via, Steve Watts, Sherwood Parker, Chris Kenney and Jasmine Hasi to discuss possible SLAC involvement in 3D sensors activities. Four areas have been selected:

1. Systematic tests of 3D devices
2. Test beam (preparation, data taking and analysis)
3. Proton Irradiation of 3D device and post irradiation bump-bonding
4. Tests with "bumped" edge sensors

The main goal of the 3D sensor collaboration in 2009 is to validate the 3D sensor for the Insertable B Layer (IBL). The choice of the pixel technology for the IBL shall be made by the end of 2009 or early 2010. For most 2009 tests, the front end chip will be the FE-I3. FE-I4 chips are expected by fall.

General documentation:

ATLAS 3D sensor homepage:

<http://atlas-highlumi-3dsensor.web.cern.ch/atlas-highlumi-3dsensor/Default.htm>

Project status at Nov. 2008 Nihkef Workshop, slides from Cinzia Di Via:

<http://indico.cern.ch/getFile.py/access?contribId=83&sessionId=12&resId=0&materialId=slides&confId=32084>

3D sensor Collaboration Meeting:

- 12 May 2009
- 23 February 2009
- 09 January 2009

General presentations:

1. Colloquium by Sherwood Parker
2. SLAC instrumentation seminar: Cinzia Di Via (21 January 2009)