

Report to HELEN

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Title: Report of collaboration between CMS UERJ group and CMS CINVESTAV group

Supervisor: Heriberto Castilla- CINVESTAV-IPN

From 11 June to 9 July.

Week from June 11 to 27:

I was working in the installation and configurations of software to calibration the hybrid detectors, this software is called "Big Browser" to calibrate online and ARCs to calibrate offline. those program are part of "CMS Tracker Data

Base" and it has as main goals:

- Retrieve and register the information of ID number of each object to be characterized or calibrated.
- Delete registered objects from the CMS db (CMS Data Base)
- Cancel and submit the calibration from the db
- Store the result files of running status.

Week From June 18 to 24:

- Use and configuration of ARCs program to calibration in off line the detectors.
- Test of hybrid detector off line using the ARCs program.
- Test of transference using "Big Browser" program and files obtained from ARCs calibration program,
- Use of the Arc Program used to control hardware to do a little hybrid detector file test.

Week from June 25 to July 01:

I was trynd in the hardware that is being developed by the group on bonding of hybrids that are part of the readout of Silicon modules for the Outer tracker of CMS.

Week from July 02 to July 08:

Test over hybrids using the hardware and software to put to an integrity test using a setup that injects pulses and reads out the signal from the hybrids, checking in this way channels with problems, like open channels, short circuits and study of gains and pedestals for the hybrids at the end we get the a file with the main hybrid detector characteristic to be sent by ARCs program or Bigbrowser to update de CMS Tracker Data Base.

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