

## **Minutes of USC Instrumentation meeting on 26-03-2010**

**Present:** J. Caride, J. Visniakov, P. Vázquez, D. Esperante, E. Pérez, A. Gallas, J. Saborido, A. Pazos, B. Adeva.

### **1) DEPFET (30 minutes)**

#### Irradiation activities status at Santiago (P. Vázquez):

E. Pérez has been making bonding studies. There are 36 transistors that we want to bond and irradiate. They are of different width/length ratios. The irradiation will be performed in 12 steps (100 kRad, 200 kRad, ..., 1MRad, ... 10MRad). With the present PCB adaptor board only 32 transistor can be bonded. Adaptor board already finished. We need:

1 week to do the bonding (E. Pérez)

1 week to build the mechanical infrastructure (A. Pazos). Parts ordered, waiting for arrival (2 weeks).

In 3 weeks from now we will start the irradiation.

#### Status of analysis of test-beam data (J. Caride):

Progress on the analysis of test beam data has been made. Results have improved after performing eta correction in a proper way. As well, the region of interest of the matrix for the analysis has been tuned and the residuals have improved. There are still inconsistencies with Christian's results, the RW algorithm is producing better results than the RWM in contradiction with the results from Christian.

Still we are running over only one file/partition, while Christian is running over 13 files/partitions.

The next test beam meeting will happen in Gottingen on the 15<sup>th</sup> - 16<sup>th</sup> of April. In this meeting the analysis strategy and the USC contribution to the project will be discussed and set. It has been decided that either P. Vázquez or C. Iglesias will be there with J. Caride at least one day of the meeting. If that is not possible an EVO meeting will be arranged from Santiago. If that is the case nobody needs to travel to Gottingen.

It has been decided that a proto-plan or strategy for the analysis to be performed with the test-beam data will be drafted and discussed before the meeting.

#### Status of DEPFET tests at Santiago (J. Visniakov):

J. Visniakov suggested Serguei from Bonn to take data with the matrix and the <sup>241</sup>Am source and the same type of shielding he is using in his set-up at Santiago.

However, Serguei did not have time yet to do the tests. J. Visniakov has been busy with some software installations, so he did not have more news.

Status of Belle LV design prototype (P. Vázquez):

Commercial parts, evaluation board, etc ... are being ordered. Design will follow afterwards.

**2) Tests stands for micro-strip and pixel sensor at Santiago (5 minutes)**

E. Pérez reported on the status of the test stands for micro-strip and pixel sensors at Santiago. Parts (goniometers, special glasses) have been ordered and were expected to arrive this week. Company will be contacted to find out the status of the order.

**3) TimePix test beam telescope construction (5 minutes)**

E. Pérez checked that the motorized actuators and rotators will arrive at CERN by the end of next week. A. Gallas will have to move them from the french to the suisse part of CERN.

**4) News from collaboration with CNM on thinning of 2D pixel sensors (Abraham, 5 minutes)**

The flip-chip machine at CNM is broken. The machine is not going to be fixed before Easter. This introduces a two week delay in the plan. Furthermore, CNM people discovered that the wafers sent by the company to be processed at the CNM are not of good quality. In fact none of the 200 microns could be used. The company has been contact to find a solution to the problem.

**A.O.B. (5 minutes)**

After some discussion it has been decided to move the instrumentation group meeting to Thursdays at 16:00 pm. E-mail will be sent to announce the change.